

Transportation  
Library

MARCH 8, 1947

FEB 13 1947  
Editorial Contents, page 37

# Railway Age

Founded in 1856

Improve your  
drop bottom gondola cars...



Specify



**Spring Hinges**  
and ADJUSTABLE  
**Master Locks**

FOR EASIER AND FASTER OPERATION



• THE WINE RAILWAY APPLIANCE COMPANY • TOLEDO 9, OHIO •



*this isn't the Half of it!*

**W**hat a glutton for punishment the Chilled Car Wheel is! That's why we call him "The Tough Guy". He has to be tough. He keeps the nation's freight rolling.

It is our business to make sure that his service life is a long one. AMCCW members put him through a long series of workouts and work checks — gruelling impact tests . . . careful flange dimension measurements . . . wheel surface inspections . . . reviews of casting records — not to mention temperature tests from cupola to cleaning room.

We at AMCCW never let up in our study of wheel performance . . . in our search for new worthwhile developments to introduce into modern wheel making . . . in our devising of more and more severe tests to assure long and safe chilled car wheel life.



#### ASSOCIATION OF MANUFACTURERS OF CHILLED CAR WHEELS

445 NORTH SACRAMENTO BOULEVARD, CHICAGO 12, ILL.

American Car & Foundry Co. • Canadian Car & Foundry Co. • Cleveland Production Co.  
Griffin Wheel Co. • Marshall Car Wheel & Foundry Co. • Maryland Car Wheel Co. • New York  
Car Wheel Co. • Pullman-Standard Car Mfg. Co. • Southern Wheel (American Brake Shoe Co.)

4966

Published weekly by Simmons-Boardman Publishing Corporation, 1309 Noble Street, Philadelphia, Pa. Entered as second class matter, January 4, 1933, at the Post Office at Philadelphia, Pa., under the act of March 3, 1879. Subscription price \$6.00 for one year U. S. and Canada. Single copies, 50 cents each. Vol. 122, No. 10.

# Railway Age

With which are incorporated the Railway Review, the Railway Gazette,  
and the Railway Age-Gazette. Name registered in U. S. Patent Office.

Vol. 122

March 8, 1947

No. 10

PUBLISHED EACH SATURDAY  
BY THE SIMMONS-BOARDMAN  
PUBLISHING CORPORATION, 1309  
NOBLE STREET, PHILADELPHIA  
23, PA., WITH EDITORIAL AND  
EXECUTIVE OFFICES AT 30  
CHURCH STREET, NEW YORK 7,  
N. Y., AND 105 W. ADAMS STREET,  
CHICAGO 3, ILL.

WASHINGTON 4, D. C.: 1081 NATIONAL PRESS BUILDING—  
CLEVELAND 13: TERMINAL  
TOWER—SEATTLE 1: 1033 HENRY  
BUILDING—SAN FRANCISCO 4:  
300 MONTGOMERY STREET,  
ROOMS 805-806—LOS ANGELES 14:  
530 WEST 8th STREET—DALLAS  
4: 2909 MAPLE AVENUE.

SAMUEL O. DUNN, CHAIRMAN.  
JAMES G. LYNE, VICE-PRESI-  
DENT—ASSISTANT TO CHAIR-  
MAN. HENRY LEE, PRESIDENT.  
ROY V. WRIGHT, VICE-PRESI-  
DENT AND SECRETARY. C. MILES  
BURPEE, F. H. THOMPSON, F. C.  
KOCH, R. E. THAYER, H. E. Mc-  
CANDLESS, S. WAYNE HICKEY,  
VICE-PRESIDENTS. J. T. DeMOTT,  
TREASURER. RALPH E. WESTER-  
MAN, ARTHUR J. MCGINNIS, AS-  
SISTANT TREASURERS.

SAMUEL O. DUNN, EDITOR.  
JAMES G. LYNE, ASST TO EDI-  
TOR. ROY V. WRIGHT, MANAG-  
ING EDITOR. NEAL D. HOWARD,  
WESTERN EDITOR. C. B. PECK,  
ALFRED G. OEHLER, E. L. WOOD-  
WARD, J. H. DUNN, H. C. WIL-  
COX, CHARLES LAYNG, WALTER  
J. TAFT, M. H. DICK, W. H.  
SCHMIDT, JR., C. L. COMBES, C. B.  
TAVENNER, MAURICE PEACOCK,  
FRED W. SMITH, SHERMAN  
DAVIS, FRED C. MILES, WALTER  
L. TURNER, JR., G. J. WEIHOFEN,  
GEORGE JOHNSON, HENRY E.  
MICHAEL, LIBRARIAN: EDITH  
C. STONE, EDITORIAL ASSIST-  
ANT: ELAINE C. FARRAR.

C. MILES BURPEE, BUSINESS  
MANAGER.

SUBSCRIPTIONS INCLUDING 52  
REGULAR WEEKLY ISSUES, AND  
SPECIAL DAILY EDITIONS PUBLISHED FROM TIME TO TIME IN  
NEW YORK OR IN PLACES OTHER  
THAN NEW YORK, PAYABLE IN  
ADVANCE AND POSTAGE FREE.  
UNITED STATES, U. S. POSSES-  
SIONS AND CANADA: 1 YEAR,  
\$6.00; 2 YEARS, \$10.00; OTHER  
COUNTRIES NOT INCLUDING  
DAILY EDITIONS: IN WESTERN  
HEMISPHERE 1 YEAR \$10.00; 2  
YEARS \$16.00; OTHER COUNTRIES  
1 YEAR \$15.00; 2 YEARS \$25.00.  
SINGLE COPIES, 50 CENTS EACH.  
H. E. McCANDLESS, CIRCULATION  
MANAGER, 30 CHURCH STREET,  
NEW YORK 7.

## In This Issue

### Evolving Policy on Waterway Subsidies . . . . . 494

Nineteenth-century Presidents' constitutional objections to federal expenditures for local internal improvements never conclusively disposed of.

### Electronic Air Conditioning Control for Railway Passenger Cars . . . . . 498

System utilizes panel radiant heating; heat exchanged to a non-freezing liquid circulated in the radiators; and a new principle of electronic temperature control.

### U. P. Container Engineering a Boon to Customer Relations . . . . . 500

First year of work of "container engineer" indicates that good packaging conduces to damage-less freight movement.

## EDITORIALS

Reducing Taxes by Abolishing Subsidies . . . . .	485
Average Speeds in Freight-Train Service . . . . .	486
The Federation for Railway Progress . . . . .	486

## GENERAL ARTICLES

How Much Is Diesel Fuel Ousting Coal? . . . . .	488
Union Completes Major Improvements, Part II . . . . .	490
Evolving Policy on Waterway Subsidies, by C. S. Duncan . . . . .	494
Electronic Air Conditioning Control for Railway Passenger Cars . . . . .	498
U. P. Container Engineering a Boon to Customer Relations . . . . .	500
"Inequality" of Carrier Taxes . . . . .	502
Rules on Land-Grant Rates Under 1940 Act . . . . .	503
Eastern Roads Would Lift Passenger Fares . . . . .	504

### NEW BOOKS . . . . . 505

### GENERAL NEWS . . . . . 506

### WITH THE GOVERNMENT AGENCIES . . . . . 512

*Railway Age is a member of Associated Business Papers (A. B. P.) and Audit Bureau of Circulation (A. B. C.), and is indexed by the Industrial Arts Index and by the Engineering Index Service.*



PRINTED IN U. S. A.



# Where Coordination Counts

## "UNION" I.T.C. *assures it!*


**I**NSTANT voice communication between crews of head-end and helper locomotives is just one example of how "Union" I.T.C. helps bring modern trains to destinations swiftly and efficiently.

The power of those locomotives can be used more effectively because it is coordinated—through co-ordination of the crews. Enginemen can discuss acceleration, deceleration, stopping, and starting, thus minimizing chances of break-in-twos due to misunderstanding of each others intentions. Either crew can inform the other of any unusual condition which may develop, and the remedy can be determined and accomplished quickly. When portions of the consist are to be

cut out en route, those operations often can be performed quicker. Such co-ordination easily can be the difference between "late-arrival" and "on-time" railroading!

Equally important advantages are to be gained when I.T.C. is used for communication between trains, between points in the same train, and between trains and wayside stations. Bulletin 160 explains many ways "Union" Inductive Train Communication can serve your railroad—by co-ordinating and speeding operations—by augmenting the efficiency of rolling equipment and personnel. Write for it, or call any "Union" district sales office.

**UNION SWITCH & SIGNAL COMPANY**

SWISSVALE  PENNSYLVANIA

NEW YORK

CHICAGO

ST. LOUIS

SAN FRANCISCO

**UNION I.T.C. THE VOICE OF EXPERIENCE IN TRAIN COMMUNICATION**

## RAILWAY AGE

### *Reducing Taxes by Abolishing Subsidies*

*Railway Age* wants no subsidies, direct or indirect. The Simmons-Boardman Publishing Corporation publishes not only *Railway Age*, but five other business magazines and numerous books, large and small, on railway, building and marine subjects. This company wants no subsidies, direct or indirect, for any of its publications.

The foregoing statements are made apropos of the publicity being given to deficits being incurred by the Post Office Department. Spokesmen of the department claim these deficits are largely due to losses incurred in handling magazines and newspapers in second class mail. We do not know whether this claim is correct. Government cost accounting often seems intended to prove whatever government officials desire to have proved.

But *Railway Age* believes that, like that of any business, the budget of the Post Office Department should be balanced annually. It believes that to this end the rates of the department for the various services it renders, like those of railways, should not in any case be less than the out-of-pocket cost of rendering any service and should be graduated upward from that basis in proportion to what the different kinds of traffic will bear. Such fixing of postal rates would (1) relieve the taxpayers of postal deficits and (2) stop use of the Post Office Department as an agency for the distribution of subsidies.

#### **Almost Everybody Is Subsidized**

Let us now hear from other advocates of "free private enterprise" who are allegedly or demonstrably receiving or seeking subsidies. Even if the subsidies being received by publishers are as large as claimed, they are a mere spit in the ocean compared with the total direct and indirect subsidies being paid by the federal, state and local governments.

Every dollar spent on inland waterways is a subsidy to those—principally large corporations—who use them. Most of the expenditures for providing lighting and airports for airways are subsidies. Much of what the Post Office Department pays the airways for carrying the mails is a subsidy. A large part of the expenditures made on highways is a subsidy to commercial carriers of passengers and freight.

Carriers competing with the railways are not the only recipients of large subsidies. The losses incurred by the Tennessee Valley Authority are subsidies from American taxpayers to those to whom it sells power. Farmers are being subsidized on a large scale by use of tax money for the purpose, for example, of maintaining parity prices.

Protective tariffs indirectly subsidize their beneficiaries by enabling them to keep up the prices they charge everybody. Tenants of public housing are subsidized by being rented government property at less than cost; and Senator Taft, a leading Republican proponent of "free private enterprise" and "economy in government," is also a leading advocate of more spending of taxpayers' money to provide more public housing to subsidize more people.

Almost everybody is being subsidized in some way; and almost everybody is receiving less in subsidies than the taxes they cost him.

#### **What Do Subsidies Cost?**

During the last political campaign Republican leaders promised a 20 per cent reduction of individual income taxes. It is claimed now, even by some Republicans, that this reduction of taxes should not be made because government expenditures cannot be safely reduced enough to justify it. Apparently nobody in Washington has thought of ascertaining the total that direct and indirect subsidies are costing and how much reduction of taxes would be made possible by abolishing all of them.

If some statesman should introduce a bill requiring ascertainment and abolition of all subsidies, direct and indirect, the results would be enlightening. Also entertaining. A howl of opposition and dismay would emanate from Communists, Socialists and New Dealers. But not from them alone. Many ostensible defenders and advocates of "free private enterprise" would unite their outcries of opposition with those of Communists, Socialists and New Dealers. For many kinds of business have long enjoyed subsidies and yearn passionately for more of the same. They are opposed to all socialistic policies—excepting those by which they believe they benefit. They are very strongly opposed to all subsidies—excepting those that they receive. They want taxes reduced—

but not enough to make them pay their total costs of doing business from their own earnings.

It is time that all those who profess to advocate "free private enterprise," to oppose socialistic policies, and to favor reduction of taxes and balancing of the government budget should show that they have become honest. They could show it in no better way than by beginning to oppose *all* socialistic policies, including *all* subsidies.

## Average Speeds in Freight-Train Service

In a statement made by C. R. Osborn, vice-president of General Motors Corporation and general manager of its Electro-Motive Division, in an address before a combined meeting of the Mid-West Shippers Advisory Board and the Traffic Club of Chicago, which was summarized on page 283 of the February 1 *Railway Age*, he is reported to have said that Diesel-powered roads were averaging 24 to 30 m. p. h. in the movement of freight trains, which compared with the national average of 17 m. p. h. with steam power. This statement has been called to our attention by a correspondent who is of the opinion that the figures as presented do not do justice to steam locomotives.

To understand the effect of the introduction of Diesel-electric motive power in freight-train service on average freight-train speeds one needs to examine the published information concerning train-mile and train-hour performance which is now classified to show the data separately for the various types of motive power. These figures for the first eleven months of 1946 are shown in the table.

Looking at the average freight-train speeds by regions and districts, it will be seen that the average of both Diesel and steam-propelled trains is low in the Eastern district, with a difference of less than three miles an hour. In the Southern region where the Diesel-electric mileage amounts to 8 per cent and in the Western district where it amounts to 10 per cent, the Diesel-electrics average 26 m. p. h. and 22.7 m. p. h., respectively, while the steam-propelled mileage averages less than 17 m. p. h.

The latest available published data showing average freight-train speeds by individual railroads cover the twelve months of 1945. During this period a number of railroads in each of the regions were operating Diesel-electric locomotives in freight service, from a few locomotives up to substantial fleets. Among the operators of substantial numbers of Diesel locomotives in freight service at that time was the New York, New Haven & Hartford. Its average freight-train speed for the period was 13.4 m. p. h. compared with the New England region average of 14.2 m. p. h. for all types of motive power. In the Central Western region, the Atchison, Topeka & Santa Fe, with extensive Diesel operation, had an average freight-train speed of 18.1 m. p. h. The Union Pacific averaged 19.5 m. p. h., and the Alton 21.8 m. p. h. For the Central Western region as a whole the average was 17 m. p. h.

Average freight-train speed conceals a multitude of operating conditions and varieties of traffic which, as a whole, have more to do with determining the average

Freight Train-Miles, Freight Train-Hours, and Average Speeds Classified by Types of Motive Power (First 11 Months of 1946)

	Train-miles	Train-hours	Miles per Train-hour
United States:			
Steam-propelled .....	491,732,746	31,341,272	15.7
Diesel-electric .....	40,230,249	1,848,012	21.8
Electric .....	8,838,091	502,470	17.6
Total .....	541,246,593	33,719,859	16.1
Eastern District:			
Steam-propelled .....	159,864,178	11,332,707	13.9
Diesel-electric .....	7,782,849	462,782	16.8
Electric .....	7,220,517	394,263	18.3
Total .....	174,885,743	12,191,760	14.3
Poahontas Region*:			
Steam-propelled .....	21,600,143	1,422,984	15.1
Diesel-electric .....	11,570	463	25.0
Electric .....	655,139	46,617	14.0
Total .....	22,266,852	1,470,064	15.1
Southern Region*:			
Steam-propelled .....	88,600,500	5,401,474	16.4
Diesel-electric .....	7,727,743	296,443	26.0
Electric .....			
Total .....	96,328,243	5,697,919	16.9
Western District:			
Steam-propelled .....	221,667,925	13,184,107	16.8
Diesel-electric .....	24,708,087	1,088,322	22.7
Electric .....	962,435	61,590	15.6
Total .....	247,765,753	14,360,116	17.2

\*Southern District

freight-train speed of an individual railroad than does the type of motive power employed. When, however, Diesel locomotives are first introduced in freight service, they are, in most cases, assigned to the runs which average the highest miles per hour. The train-miles and train-hours of these runs, removed from the figures which make up the basis of the average for steam-propelled trains, reduce the average speed for the steam trains and are likely, themselves, to be high. It must be remembered that the time spent in train switching en route is included in train-hours. A corollary of these facts is that, as the proportion of freight train-miles performed by Diesel locomotives increases, the average speed of the Diesel trains will tend to decrease.

## The Federation for Railway Progress

The Federation for Railway Progress, launched on February 24 by Robert R. Young, as set forth in detail in an article in our last week's issue, is an experiment in improving the social relationships of the railroad industry which will be watched with interest by everybody in and around the railroads. To what extent the federation will receive the active support of railroad people other than those immediately associated with Mr. Young will depend, doubtless, on the degree to which it demonstrates its effectiveness in attacking the influences making for railroad poverty and, hence, inadequate service.

There are some people who do not especially like Mr. Young, but not many who question his ability—particularly in drawing popular attention to situations which, lacking the exercise of such skill as his, would awaken little public concern. No one can deny that the railroads have great need for the functioning of such talent in their behalf. There are a half-dozen aspects of the industry's condition which are, in the long run, of vital importance to the public welfare, but of which most people are hardly conscious. Primary among these important but poorly understood aspects of the railroads'

situat  
railro  
which  
inves  
It  
busi  
vesto  
unwil  
highly  
and h  
of the  
is frie  
to wh  
inadeq  
deserv  
public  
an unc  
correc  
part o  
rates t  
govern  
and b  
other  
labor)  
still fu  
The  
lies in  
after th  
not bec  
his opi  
But inc  
is the t  
experie  
unprof  
tion of  
roads a  
cases in  
jective  
the rail  
interests  
The f  
ress," th  
Progress  
and Rec  
Berge in  
the pow  
as repor  
substanc  
Mr. You  
at comm  
still not  
body else  
in transp  
a supplie  
sirable in  
ments wh  
views. I  
Young's  
the "nat  
when it  
fully polic  
he activel  
process o  
Whatex  
garding s

situation are the chronically unfavorable earnings of railroad equity securities and the consequent disfavor in which railroad equities are held in the estimation of investors.

It is difficult to continue indefinitely to operate a business satisfactorily as a private enterprise when investors have small confidence in its future and are unwilling to venture new capital in it, except with a highly preferential claim on earnings. If Mr. Young and his federation can succeed in dramatizing this aspect of the railroad situation so that every American who is friendly to free enterprise will understand the extent to which private capitalism is threatened by persistently inadequate earnings of railroad equities, then he will deserve well from both the railroad industry and the public. If, in addition, he can also bring the public to an understanding of *how* these poor earnings are to be corrected (that is, not alone by greater alacrity on the part of the Interstate Commerce Commission in holding rates to remunerative levels, but by the curtailment of governmental subsidies to rival agencies of transport, and by the discouragement of "featherbedding" and other extortionate practices on the part of organized labor), then he will merit, and will doubtless receive, still further encomiums.

The danger of extensive experience in any business lies in the tendency to continue practices from habit after they have outlived their usefulness. Mr. Young has not been reticent in pointing out instances where, in his opinion, the railroads have fallen into this error. But inexperience also has its dangers—one of which is the temptation to venture on courses of action which experience or careful study would show to be inherently unprofitable. Time alone will tell whether the association of Mr. Young with such prosecutors of the railroads as Wendell Berge, whose practice of trying court cases in the newspapers has been condemned by objective scholars, will prove to be beneficial either to the railroad industry as a whole or to Mr. Young's own interests in it.

The first article in Vol. I, No. 1 of "Railway Progress," the publication of the Federation for Railway Progress, is an attack by Mr. Berge on the Bulwinkle and Reed bills now pending in Congress, which Mr. Berge insists "set up machinery for the legalization of the power of the monopoly group." Yet the Reed bill, as reported in the Senate, has been revised to adopt in substance the suggestions made for its improvement by Mr. Young's counsel, R. W. Purcell, when he appeared at committee hearings on the measure. Mr. Young is still not satisfied with the bill—but practically everybody else in the country who has any serious interest in transportation or knows anything about it, either as a supplier or a customer, considered the measure desirable in the public interest even without the amendments which were made in deference to Mr. Young's views. It is difficult for this paper to understand Mr. Young's insistent refusal to countenance to some degree the "natural monopoly" inherent in railroad service when it takes the form of inter-company action carefully policed by the regulators—while, at the same time, he actively favors the reduction of competition by the process of wholesale railway consolidation.

Whatever reservations one may have, however, regarding some portions of Mr. Young's program, its

major objectives are constructive. There have been many efforts, none so far very successful, to arouse the owners of railroad stocks from their poverty-ridden frustration and to unite them in the vigorous and hopeful defense of their legitimate interests. No one thing could so benefit the railroad industry as this—because the stockholder is the residual claimant to railroad earnings after all other legitimate interests have been satisfied; so, when the railroad stockholder thrives, all parties in and surrounding the railroads are, ipso facto, well taken care of. Perhaps it is just such ability as Mr. Young possesses to capture nationwide attention day after day which is needed to lift railroad owners out of their troubled lethargy. If Mr. Young will devote his main attention to such constructive objectives as this, he will do the railroads, free enterprise, and the country as a whole so great a service that few will begrudge him the employment of a small fraction of his great energy in activities of questionable utility to the common welfare.

### Do Profits Injure Labor?

"It would be helpful to a somewhat bewildered reader . . . if an expert . . . would explain the difference, from the Christian, moral and psychological points of view, between the profit motive, on the one hand, and (1) the salary motive and (2) the wages motive on the other."

The foregoing is a quotation by Edward H. Collins in the New York Times of a letter written by Professor L. P. Jacks, of Oxford University, back in 1942. Continuing, Professor Jacks wrote:

"Are we to understand that a man is acting against the interests of the community by seeking to increase his private profits from 4 to 5 per cent, but for the interests of the community when he demands a rise of his private salary from £400 to £500 a year, or of his private wages from £4 to £5 a week? . . . Or shall we say that profit-making is wrong because profit-makers are rich, and by nature greedy and money-loving, while salary-receivers and wage-earners are poor, and by nature generous and money-despising? That would be grossly untrue."

"The argument that American corporate profits in 1946 were 'excessive' in terms of historical precedent has been pretty effectively disposed of," Mr. Collins continues. "What has not been disposed of is the persistence on the part of labor leaders in regarding high wages as the just reward of honest productive effort and the *sine qua non* of a healthy economy, while viewing anything better than subnormal business earnings as so much unearned and wasted increment . . . of dubious economic morality."

"The nearest approximation we have in this country to what may be called the application of a profits policy is in the economic area of the railroads. Here, in microcosm, we have a perfect working model of that happy economy envisioned by devotees of the purchasing power theory—an economy in which high wage rates and low earnings walk hand in hand. It would be interesting to know just who has profited from this noble experiment. . . . Certainly not the investor. Certainly not the public. And certainly not railway labor."

"This writer has always contended that had the railway unions put as much time, effort and political influence into seeing that the carriers were permitted to earn a fair return on their investment as they have into their unremitting campaign for ever-higher hourly wage rates, they would today be enjoying not only high wage rates but high-level employment instead of the high nominal wage rates and steadily declining employment that have been the twin characteristics of the last twenty-five years of peacetime railroad operations."



Diesel locomotives performed a greater portion of the road freight and passenger locomotive mileage in 1946 than in any previous year; yard switching hours also increased greatly

## How Much Is Diesel Fuel Ousting Coal?

**Railway purchases of these commodities indicate the tremendous gain internal combustion engines have made over steam locomotives during the past 14 years—Changeover accelerated in 1946**

**D**IESEL fuel purchases have jumped from a relatively minor item on the railroads' buying list in 1933 to a sizable amount, both as to volume and dollar value, in 1946. During this relatively short 14-year period, Diesel fuel buying has increased 8,362 per cent, while coal increased 48.4 per cent and fuel oil gained approximately 112.2 per cent.

Although coal producers lost more and more of their railroad market during the latter part of this 14-year period, and bid fair to lose considerably more in the future, they increased the price of their product almost as much as did the producers of Diesel fuel and fuel oil. Since the cost of fuel assumes a substantially greater proportion of the total cost of operating a steam locomotive than in the case of running a Diesel, any increase in the price of coal has a far greater effect on comparative operating costs than does an equal increase in the price of Diesel fuel.

Prior to November 11, 1934, when the Chicago, Burlington & Quincy inaugu-

ated Diesel-electric locomotive passenger-train service, Diesel fuel purchases were chiefly for pumping and other stationary engines and amounted to about only 6,500,000 gal. a year. By 1936 Diesels performed 0.4 per cent and 0.12 per cent, respectively, of the total road passenger and freight locomotive mileage and purchases of Diesel fuel had increased to 17,422,379 gal., as is shown on the chart.

The inauguration of Diesel-electric main-line freight-train service on February 4, 1941, by the Atchison, Topeka & Santa Fe, and its subsequent adoption by other carriers, created a much greater market for Diesel fuel. During that year purchases jumped to 121,113,877 gal.

By the end of 1942, Class I railroads had placed 1,525 Diesel-electric locomotives in service, including passenger, freight and switch engines, and Diesel fuel purchases were fast approaching a 200,000,000-gal.-a-year mark. During 1942—the first full year of road freight service—Diesel locomotives covered 5,-

778,000 miles, or 0.8 per cent, of the total road freight locomotive mileage. Total passenger Diesel locomotive mileage in 1942 was 9.4 per cent of the total, compared with 0.4 per cent in 1936.

### Road Freight Diesels Increase

Preliminary estimates indicate that Diesel fuel purchases during 1946 reached a new high—550,000,000 gal. Total Diesel units in service stood at 4,379 on December 1, and, according to statistics for the first 11 months, Diesel locomotives performed 6.95 per cent of total road freight locomotive mileage; 13.1 per cent of the road passenger locomotive mileage; and 29.3 per cent of the 52,853,771 yard switching-hours. The last figure given compares with 9.3 per cent of the 39,646,930 total yard switching-hours during the corresponding months of 1940.

Although railway coal purchases have increased steadily since the 1933 depression low, except for the past two years

—chief  
have, n  
with th  
or fuel  
two ye  
substanc  
petitive  
It is s  
United  
that m  
in the s  
Railroad  
siderabl  
motives  
Total  
duction  
average  
which  
387,473  
Such  
ranged  
1933 to  
ing 194  
establish  
chases  
boggane  
gregated  
1946 to  
tons, a  
1944 hig  
1945 tot  
The  
chases  
lignite p  
exhibite  
from 19  
the earl  
latter. T  
ing the  
ratio to  
20.7 per  
1943, an  
downwa  
1945, wh  
21.5 per  
further  
accordin  
The c  
very litt  
encourag  
pendable  
continue  
In the m  
has deve  
one. Sin  
ing on th  
motives t  
the coal  
pare favor  
In additi  
tive power  
more un  
necessary  
Fuel oil  
as distinct  
rose cont  
when the  
They incr  
in 1933  
However  
gal. durin  
Railway Ag

—chiefly because traffic increased—they have, nevertheless, failed to keep pace with the increase in either Diesel fuel or fuel oil purchases. During the past two years coal purchases have dropped substantially, while the purchases of competitive fuels have continued to grow. It is significant that District 4 of the United Mine Workers has announced that miners in Pennsylvania will fight in the state legislature the Pennsylvania Railroad's program to replace a considerable number of coal-burning locomotives with Diesels.

Total bituminous coal and lignite production for all uses from 1933 to 1946 averaged 469,312,357 tons annually, of which railway purchases averaged 99,387,473 tons (21.18 per cent) annually. Such purchases during this period ranged from a low of 75,486,947 tons in 1933 to a peak of 135,579,265 tons during 1944. Although railway coal buying established a new peak in 1944, purchases during both 1945 and 1946 to-bogganed. Purchases during 1945 aggregated 124,219,729 tons, while the 1946 total is estimated at 112,000,000 tons, a drop of 23,579,265 tons under the 1944 high and 12,219,729 tons below the 1945 total.

The ratio between railway coal purchases and total bituminous coal and lignite production, as shown in Table I, exhibited a continuous downward trend from 1933 to 1940, from 22.6 per cent in the earlier year to 19.2 per cent in the latter. The pressing need for power during the following four years caused the ratio to rise to 20.2 per cent in 1941, 20.7 per cent in 1942, 22.0 per cent in 1943, and 21.9 per cent in 1944, but the downward trend can again be noted in 1945, when railway purchases slipped to 21.5 per cent, with the prospect of a further drop to 21.0 per cent in 1946, according to estimates.

The coal mining industry has made very little effort until recent years to encourage one of its best and most dependable customers — the railways — to continue using coal as locomotive fuel. In the meantime, the railway fuel market has developed into a highly competitive one. Since fuel cost has a greater bearing on the cost of operating steam locomotives than it has in the case of Diesels, the coal operator's product must compare favorably with Diesel fuel in price. In addition, in the opinion of many motive power officers, an improved and a more uniform-quality product will be necessary.

Fuel oil purchases by the railroads—as distinct from Diesel oil purchases—rose continuously from 1912 to 1943, when they reached an all-time high. They increased from 1,942,797,000 gal. in 1933 to 4,802,297,000 gal. in 1943. However they slipped to 4,702,562,000 gal. during 1945, and a further drop,

which may approximate 579,000,000 gal., is indicated by preliminary estimates of 1946 purchases.

### The Price Trend

Between 1933 and 1946, inclusive, the average purchase price of Diesel fuel to the railroads rose 68 per cent; fuel oil 111 per cent; and coal, 63 per cent. During 1933 Diesel fuel cost the railroads an estimated average of 3.2 cents a gallon, but by 1936, the first full year for which actual figures are available, the price had mounted to 3.84 cents, an increase of 0.64 cents, or 20 per cent. During 1946—when Diesel fuel purchases reached a new high—the average price climbed to approximately 5.38 cents a gallon. This figure represents an increase of .68 per cent over the 1933 price and is 23 per cent greater than the 4.37 cents a gallon paid during 1940. However, the price in 1946 was only 21 per cent over that in 1941, and only 5 per cent over that in 1945.

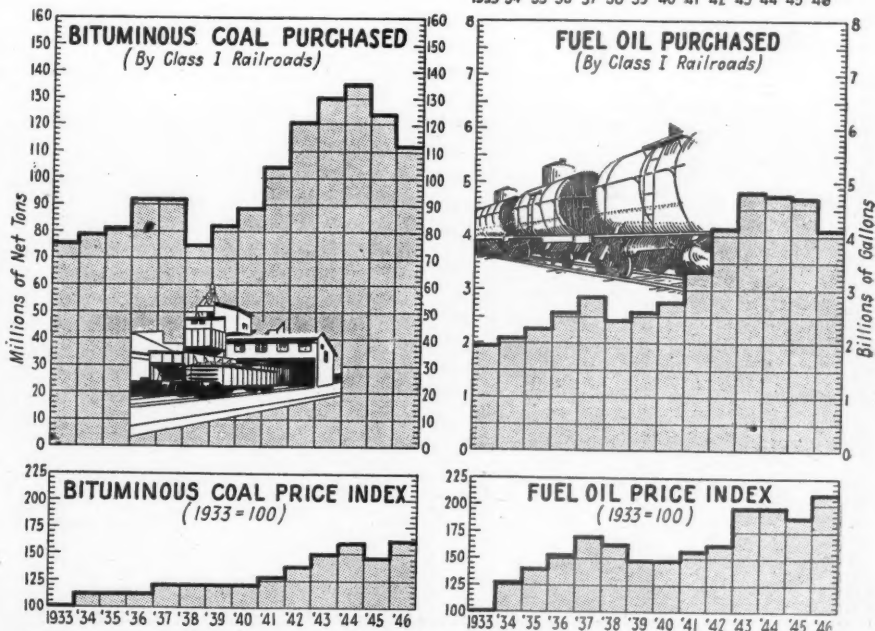
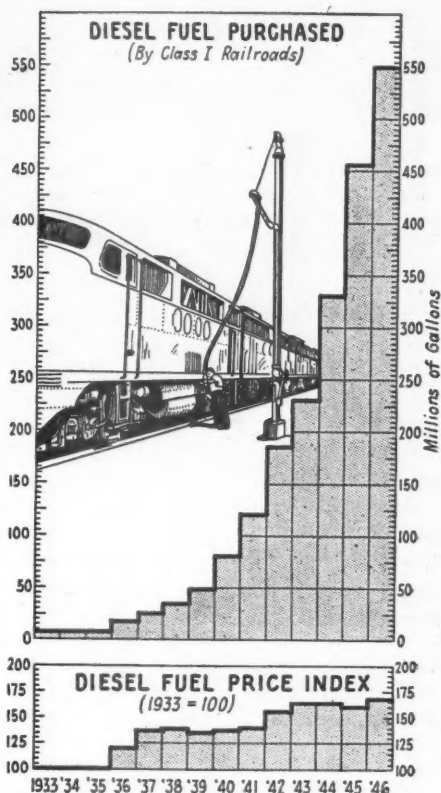
Fuel oil prices registered a gain of 111 per cent between 1933 and 1946, increasing steadily from 1.369 cents a gallon in 1933 to 2.635 cents in 1943. In 1944 and 1945 they declined somewhat, but according to estimates they reached an average during 1946 of approximately 2.89 cents a gallon—an increase of 34 per cent over the pre-war 1941 level and 12 per cent above the 1945 figure.

**Railway coal and fuel oil buying slipped considerably during 1946, while Diesel fuel purchases advanced 21 per cent over the 1945 total**

Although 1946 coal purchases dropped considerably below the 1944 peak in volume, the average price paid for this commodity has exhibited a reverse trend. In 1946 coal prices were approximately 63 per cent above the 1933 level. Furthermore, average coal prices during 1946 were 10 per cent above those prevailing during the previous year, were 37 per cent above the 1940 price, and topped the \$2.48 per ton paid during 1941 by 28 per cent.

An indication of the recent increase in railway coal prices is seen in the following: During the first 10 months of 1945 the carriers bought 103,715,681

(Continued on page 497)





Wrought-iron blast plates were installed in the new structures to protect all members that are exposed to direct blasts from locomotives. This view shows application of the plates to protect top lateral system of the Brinton bridge

ONE of the outstanding features of the Union's improvement project at East Pittsburgh, Pa. was the procedure followed in constructing the new Brinton bridge, which carries the two main tracks and the Low-Grade track over the main line of the Pennsylvania, as well as a crossover between the southward main track and the Low Grade track. This bridge is a 204-ft. single-span, through-truss structure of the Warren type, with curved upper chords and with intermediate verticals. The trusses are on 48-ft. centers.

To avoid interference with traffic over the Pennsylvania's tracks it was neces-

sary that the erection of the new bridge be carried out without the use of intermediate falsework. To support the new bridge during erection, the Pennsylvania's tracks were temporarily spanned by two 114-ft. deck plate girders, each supported on two falsework bents located outside of the clearance limits. The floorbeams of the new structure, within the limits of these girders, were first suspended beneath the girders on rods. Then the corresponding bottom-chord sections were erected and connected to the floorbeams. Next, the remainder of the bottom chords and the other floor members were placed, after which the

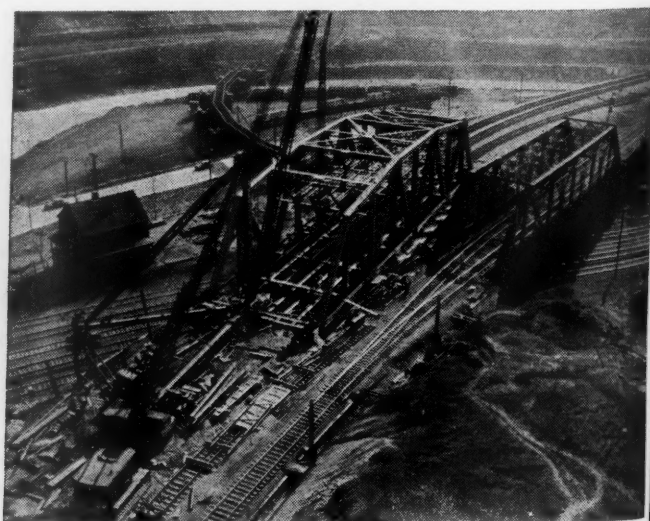
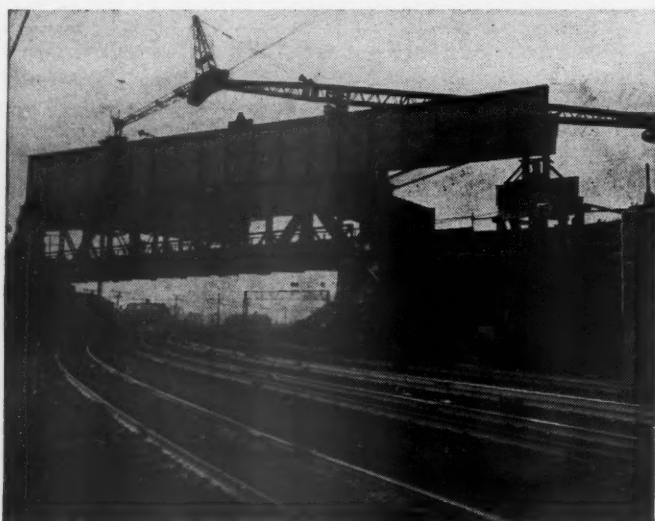
erection of the trusses was carried out in the conventional manner.

The plate girders used in this work were later used in a somewhat similar manner to dismantle the trusses of the old Brinton bridge. Finally, these were placed in the position for which they were designed—the last span to be erected—the closing link in the southward track of the High Grade viaduct.

#### Other Structures

The new Low-Grade viaduct is the longest single structure erected in the project, being 1,601 ft. in length. It

Left—Erecting the falsework girders and permanent floorbeams in the early stages of the construction of the Brinton bridge truss span. Right—Another construction view of the Brinton bridge, showing the old structure at the right



## Union Completes M

Main-line bottleneck is eliminated and other operating problems are solved by large-scale track changes involving extensive new bridging with unusual design features

is of d  
spans s  
abutme  
from th  
on an 1  
is cont  
distance  
a 229-ft  
to the  
of 4-de  
a tange

The l  
High G  
long an  
span ov  
deck-gi  
Two h  
structu  
curve, l  
alineme  
and the  
a distan  
the Hig  
carried

The l  
Turtle  
girder s

Left:  
the c  
abut  
enclo

# ates Major Improvements

## Part II

is of deck-girder construction, with 19 spans supported on concrete piers and abutments. Approaching the viaduct from the north, the track alignment is on an 11-deg. curve to the right, which is continued onto the viaduct for a distance of 167 ft. This is followed by a 229-ft. tangent, 167 ft. of 9-deg. curve to the right, a 387-ft. tangent, 493-ft. of 4-deg. curve to the left, and finally, a tangent to the end of the viaduct.

The bridge carrying the double-track High Grade over Turtle creek is 889 ft. long and embodies a 310-ft. deck-truss span over the creek proper, flanked by deck-girder approach spans at each end. Two hundred sixty-seven feet of this structure at the east end are on a 9-deg. curve, but the remainder has a tangent alignment. Between the Brinton bridge and the east ends of the two viaducts, a distance of 370 ft., the tracks of both the High Grade and the Low Grade are carried on a common embankment.

The P. R. R.-Interchange bridge over Turtle creek is a single-track, deck-girder structure incorporating two 92-ft.

spans. The Crew Dispatchers' bridge, carrying the double-track High Grade over the tracks of the B. & O. at the west end of the project, is of through-girder design, with two double-track spans, 84 ft. and 107 ft. in length. All of the structures were designed for Cooper's E-72 loading, and in accordance with the specifications of the American Railway Engineering Association. Wide walkways of timber construction, with safety hand rails, are provided along both sides of each one.

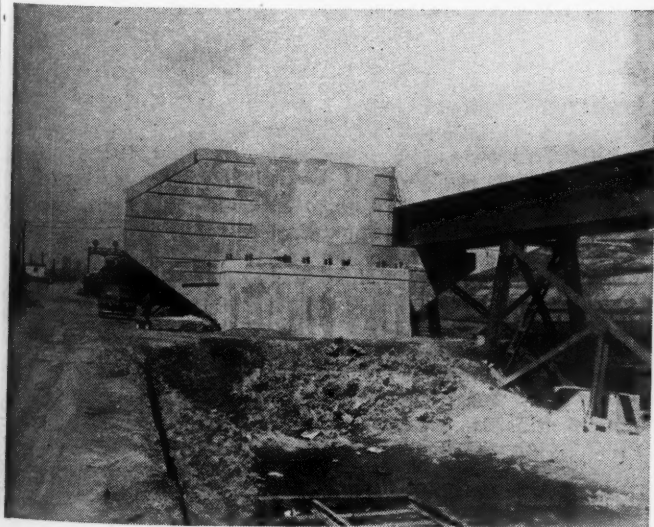
At the locations of the piers and abutments of the new bridges, a variety of materials were encountered, some of which were found to be relatively unstable. For this reason the majority of the masonry units were founded on the Union Metal Manufacturing Company's Monotube piles, filled with concrete, while others were founded on steel bearing piles or on reinforced-concrete caissons. In a few instances it was possible to support the piers on conventional footings landed on bed rock, or on spread footings resting on shale. Be-

Part I of this article, which appeared in last week's issue, described the original layout of the Union Railroad's track facilities in the vicinity of East Pittsburgh, Pa., and pointed out a number of operating difficulties resulting from the old arrangement. These facilities included an extensive bridge-and-viaduct structure to carry the tracks of the Union across a narrow, congested valley, which structures were rapidly approaching the limit of their life expectancy. The road initiated a large-scale improvement program to correct the objectionable operating features, involving a general revision of certain track facilities and replacement of the old structures by new ones designed to meet the requirements of modern rolling equipment. Part I contained a general description of these changes. Part II describes the new structures in greater detail and mentions a number of interesting features incorporated in their design.

cause of the proximity of Turtle creek, a large amount of cofferdam construction was necessary.

A number of innovations in structural-steel design were incorporated in the new bridges, intended primarily to ease the work of inspection and maintenance. For example, the cover plates of the lower chords and certain other members in the Brinton bridge were fabricated with torch-cut elliptical holes, sufficiently large to permit cleaning and painting the inner surfaces of these members.

Left—Cantilever protrusions, or "elephant ears," were used at several abutments to protect the bridge seats from the embankment material, which was allowed to run around the faces of the abutments. The completion of this abutment was postponed until the old structure at the right could be removed. Right—Each rocker bearing was enclosed in a canvas boot, securely fastened to the rocker and the masonry plate, and packed with a rust-proof compound





View of the deck of the Brinton bridge. All of the decking timber on this and the other structures in the project is of creosoted material

For greater convenience and safety while inspecting and painting the girder structures, a round steel bar was welded to the stiffeners on both sides of each deck girder at a level five feet above the bottom flange, to serve as a hand rail or grab iron. Such rails were also applied to some of the deeper floorbeams.

Another feature was designed to protect the top flanges of the deck girders from excess wear. In this,  $\frac{5}{8}$ -in. wearing plates, in suitable lengths to conform to the cut-off points of the cover plates, and pre-punched with holes to accommodate the rivet heads, were tack-welded to each of the top flanges. The holes for the rivet heads were then filled with a mastic substance known as Elaterite 124, after which the entire top flange surface was given an application of hot Texaco RCX123 Rustproof Compound H before placement of the ties. These wearing plates were not considered in the stress calculations, but sufficient tack-welding was applied to develop the values of the plates as it was feared that otherwise the welds might fail under stress.

To facilitate cleaning and painting the top lateral bracing of the deck-girder structures, this bracing was set approximately six inches below the top flanges of the girders. Still another departure from conventional design occurs at the points where the stringers frame into the webs of the floorbeams. In the usual arrangement, corrosive dirt and cinders collect in the corners formed at these

connections, often resulting in damage to the webs of the cross members. Since the stresses at the ends of the stringers are shearing stresses only, and bending is at a minimum, the flanges at these points have no structural value. Hence, the ends of the flanges of these members are cropped off at a 45-deg. angle, eliminating the troublesome corners.

Wrought iron blast plates, furnished by the A. M. Byers Company, Pittsburgh, Pa., were installed to protect members subjected to direct blasts from locomotive stacks. In the case of the Brinton bridge, two sets of plates were required; one set to protect the floor system from the blasts of trains on the Pennsylvania, and one to protect the top lateral bracing from the blasts of trains on the Union.

### Masonry Features

With the use of reinforced-concrete the sizes of all masonry units supporting the new bridges were kept to the minimum. For example, the top areas of all piers and abutments were made just large enough to receive the masonry plates and allow for a four-inch border, accomplishing major savings in concrete yardage. Further savings were effected by eliminating wingwalls at abutments wherever practicable, permitting the backfill to run around the front face of the abutment. In place of the wingwalls, short cantilever protrusions,

known as "elephant ears," were placed at the ends of the abutments to protect the bridge seats from the embankment material.

To facilitate access to the bridge seats, wrought iron ladder rungs were cast in all of the pier and abutment faces. Although they were introduced primarily to aid in future inspection and painting, the additional cost was found to be justified by the benefits afforded during erection of the structures.

All of the piers and abutments are without copings, but a pleasing appearance was obtained by horizontal rustication strips on their exposed faces, these strips consisting of recessed bands 3 in. wide and 1 in. deep, spaced on alternate 18-in. and 36-in. centers. Where it was impracticable to place the concrete monolithically, the construction joints were located at the rustication strips.

### Masonry Plates Grouted

Uniform bearing between the bridge superstructures and the supporting shoes was obtained by setting all of the girders and trusses to the proper elevation with hydraulic jacks and fitting the shoes, with their masonry plates, tight against the superstructures by shimming between the bridge seats and the masonry plates. The shimming space was obtained by constructing the bridge seat to an elevation which allowed for two inches of grout below the masonry plate. After a good fit was obtained between the superstructures and the shoes, the two-inch space was filled with a stiff grout, consisting of one part portland cement, one part Master Builder's standard Em-beco, and one part sand, by volume.

Special tools were developed for placing the grout under the masonry plates. One of the tools consisted of a flat pan with a hollow pipe handle, and a scraper for the pan having a steel rod handle which extended through and beyond the handle of the pan. To use the pan, it was filled with grout and placed under the masonry plate, after which the grout was pushed from it by the scraper. When the empty pan had been withdrawn, blunt ramming rods were used to compact the grout material. An experiment to determine the effectiveness of this method was conducted by grouting between prototype plates, each having an area of 7 ft. by 6 ft. After the grout had hardened, the plates were removed, revealing that perfect steel-to-grout bearing had been obtained at all points. In actual practice, when the grouting of the plates had been completed, the edges of the grout were buttered with the Elaterite 124 mastic.

Another innovation is the method used to protect the rocker-bearing assemblies and the masonry plates from

the elements. In this, each bearing was enclosed in a canvas boot, packed with Texaco RCX No. 123 Rust-Proof Compound H. The boot was then securely clamped to the rocker and the masonry plate by steel straps and tap bolts. The exteriors of the canvas boots were buttered with Elaterite No. 124.

### Granulated Slag Embankments

All of the embankments on the project were made with a waste product from the steel mills, known as granulated slag. This brownish, granulated material, resembling sand somewhat, weighs about 70 lb. per cu. ft. It has the property of becoming extremely hard if deposited under pressure in the presence of a small amount of moisture. This material was transported largely in side-dump cars and was dumped from the existing bridge structures. It was then spread in 10-in. layers, each of which was compacted by three passes of a 10-ton roller.

### Trackwork

Track specifications for both the main and the Low Grade lines called for a rolled and crowned granulated-slag subgrade and a 15-in. section of slag ballast.

Lewis Sealite hook bolts, or by compression-type bridge-tie anchors of the Rails Company fastened with standard  $\frac{3}{4}$ -in. bolts.

All of the grading, excavation and masonry work was performed by the McCrady Construction Company, Pittsburgh, under the direction of Superintendent R. E. Ewart, and this company also did all of the track work. The bridge superstructures were detailed and fabricated by the American Bridge Company, Pittsburgh, and were erected by this company under the direction of Superintendent J. Curtis. The decking timbers and bridge ties for the project, all of which are creosoted, were detailed and furnished by the Wood Preserving Division of the Koppers Company, Pittsburgh.

### Equipment Used

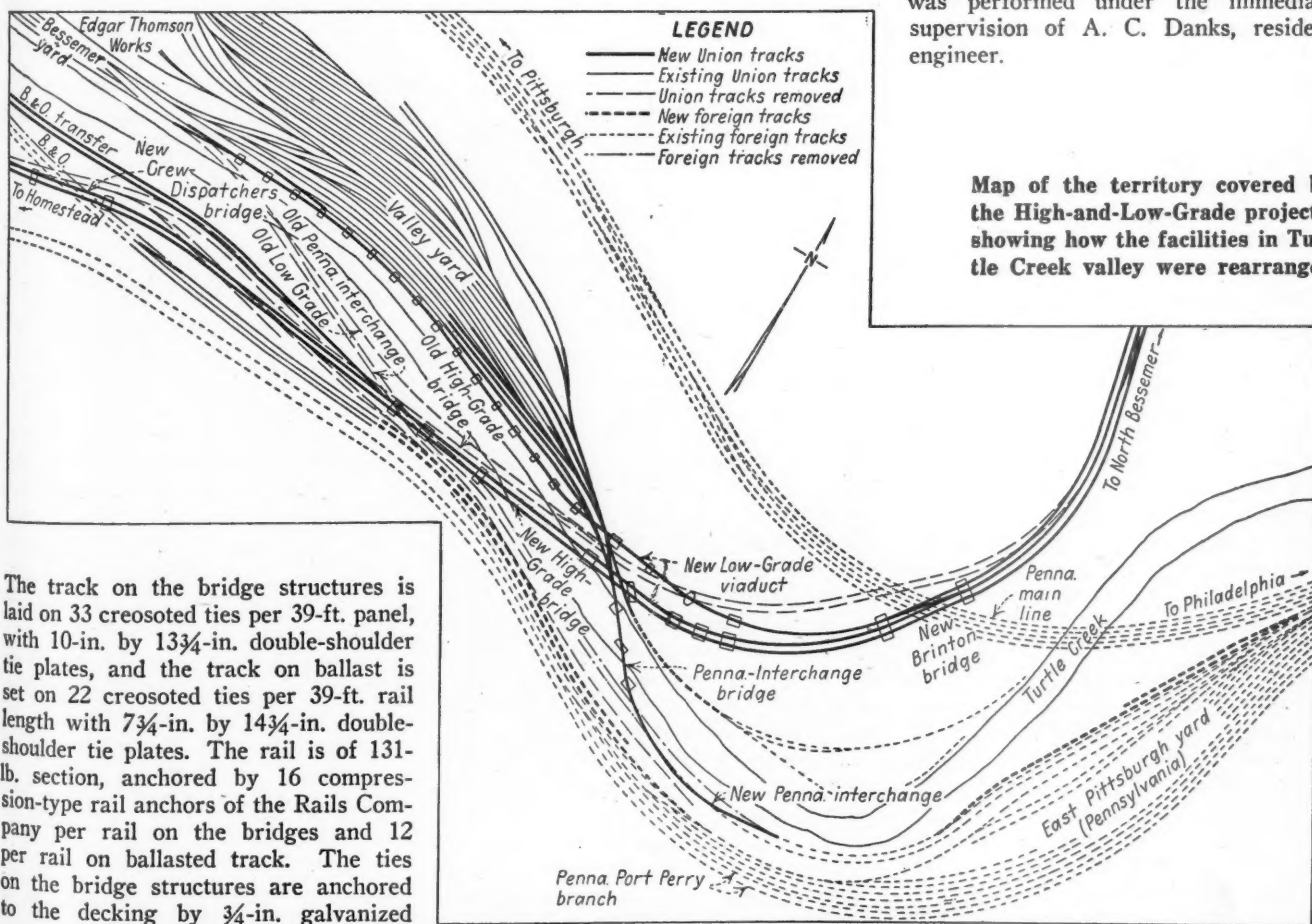
A large amount of construction equipment was used by the companies engaged in this work. The equipment of the American Bridge Company included a 150-ton stiff-leg derrick, a 60-ton stiff-leg derrick, an 80-ton derrick car, and a 40-ton derrick car, all of which were designed and built by that company. Also used by this company were three Industrial Brownhoist locomotive

cranes with capacities of 30, 60 and 150 tons, respectively; two Manitowoc crawler cranes of 50 and 60 tons capacity, respectively; and a number of items of pneumatic equipment.

The McGrady Construction Company used three Caterpillar Diesel tractors, a 12-yd. LeTourneau carryall, a 2-yd. Bucyrus-Erie Diesel crawler crane, a  $1\frac{1}{2}$ -yd. Koehring Diesel crawler crane, a  $1\frac{1}{4}$ -yd. Northwest gasoline crane, a  $1\frac{1}{4}$ -yd. P. & H. Diesel crane, and a 1-yd. Northwest gasoline crawler crane. This company also used a Caterpillar RD4 High Lift, a Kelly-Springfield 10-ton roller, a Koehring concrete mixer, and numerous smaller items, including three gasoline-powered pumps, two air-powered pumps, and a number of drills and air hoists.

The Equipment & Supplies Co., Pittsburgh, which handled the pile-driving work under subcontract, used two Manitowoc crawler cranes, a 22,000 ft.-lb. McKiernan-Terry double-action steam hammer, and two 15,000 ft.-lb. Vulcan single-action steam hammers. Steam for the hammers was furnished by two 100-hp. stationary boilers and a 50-hp. wheel-mounted boiler.

The project was planned and executed under the general direction of H. A. Sayre, chief engineer of the Union, assisted by F. R. Smith, assistant chief engineer, and E. M. Glaros, engineer of bridges and buildings, all with headquarters at East Pittsburgh. The work was performed under the immediate supervision of A. C. Danks, resident engineer.



The track on the bridge structures is laid on 33 creosoted ties per 39-ft. panel, with 10-in. by 13 $\frac{3}{4}$ -in. double-shoulder tie plates, and the track on ballast is set on 22 creosoted ties per 39-ft. rail length with 7 $\frac{3}{4}$ -in. by 14 $\frac{3}{4}$ -in. double-shoulder tie plates. The rail is of 131-lb. section, anchored by 16 compression-type rail anchors of the Rails Company per rail on the bridges and 12 per rail on ballasted track. The ties on the bridge structures are anchored to the decking by  $\frac{3}{4}$ -in. galvanized

# *Evolving Policy on Waterway Subsidies*

**Nineteenth-century Presidents' constitutional objections to federal expenditures for local internal improvements never conclusively disposed of**

**T**HE improvement and maintenance at public expense of facilities for navigation, usually without charge to the users of these facilities, has been the established policy in the United States for many years," says the Board of Investigation and Research in its report on "Public Aids to Domestic Transportation." The report adds that government aid to navigation began before the federal government was formed. This aid, it should be emphasized, was for lighthouses and harbors and not for inland waterways. Besides, the "usually without charge to the users" policy could not be called a policy of the government until Congress approved the Act of August 2, 1882, an unnumbered provision of which says that no tolls or other charges shall be made against vessels using facilities owned by the government.

By implication, at least, the statement quoted above indicates a traditional policy of government to subsidize inland waterways that is long standing and there is no indication other than that the policy was accepted without controversy. This is by no means the case. The policy had rather rough going through the nineteenth century. In the period 1817-1896 there were 21 bills providing federal subsidy for internal improvements, and nearly all involving waterways, that received the Presidential veto.

## **Basis of Vetoes**

The basis of these vetoes, whether the project for improvement was a road or a waterway, was the conviction that there was no constitutional authority for Congress to appropriate public funds for such projects, either under the Commerce Clause "to regulate commerce with foreign nations, and among the several states" or under the Welfare Clause to provide for common defense and general welfare. The vigor of argument and the frequent effectiveness of the veto do not present a picture of settled traditional policy.

On March 3, 1817, President Madison returned to the House of Representatives without signature "an act to set apart and pledge certain funds for internal improvements" and designating

**By DR. C. S. DUNCAN**

*Economist,  
Association of American Railroads*

those improvements as "constructing roads and canals and improving the navigation of watercourses in order to facilitate, promote and give security to internal commerce among the several states and to render more easy and less expensive the means and provisions for the common defense." The President based his veto upon the lack of constitutional power in Congress to make such appropriations. "The bill did not pass."

On May 4, 1822, President Monroe vetoed "an act for the preservation and repair of the Cumberland road." He based his veto on his conviction "that Congress does not possess the power under the Constitution to pass such a law." He thought that if Congress could make such an appropriation, it could adopt and execute a complete system of internal improvement, the rights, powers and sovereignty of the states notwithstanding. There is no provision, he said, in the Constitution vesting such power in the federal government. He submitted his reasons for this veto at considerable length, contending that Congress is restricted in appropriating funds "to purposes of common defense and of general, not local, national, not state, benefit" and that, if it were to be considered a wise policy for the federal government to finance internal improvements in the states, the Constitution should be appropriately amended and the matter settled once and for all. "So the bill was rejected."

President J. Q. Adams was thoroughly sympathetic toward a policy of federal aid for internal improvement. He had suggested before his election that the general government might well "checker-board" the whole country with roads and canals. He considered this an excellent way to improve commerce and spread prosperity throughout the land. During his administration there were increasing appropriations by Congress to be expended "under the direction of the President" on projects of his selection, "of a national character."

President Jackson returned to the House on May 27, 1830, without his signature but with a vigorous statement of his objections, a bill authorizing the government to make "a subscription of stock in the Maysville, Washington, Paris & Lexington Turnpike Road Company." In his veto he said that the federal government had no power to appropriate money for this purpose. His chief ground for this opinion was that the project was a local one and that the general government could only give aid to projects that were clearly "of a general, not local—national, not state" character. At great length he proceeded to point out the dangers that lay in departing from this principle and particularly when there was a surplus in the treasury. If the people of the country, he said, really desired the federal government to undertake the internal improvements for the states, there should be a constitutional amendment to that effect. "So the bill, not being supported by two-thirds of the House, was rejected."

## **"Local in Character"**

On May 31, 1830, a bill proposing to "authorize a subscription of stock in the Washington Turnpike Road Company" was vetoed by President Jackson. He made reference to his previous veto for the reasons. "So the bill was rejected."

In his annual message to Congress dated December 7, 1830, President Jackson took opportunity to set forth the reasons why he had killed by pocket veto two bills submitted "almost at the moment of the adjournment of your last session."

One bill was "an act for making appropriations for building lighthouses, light boats, beacons and monuments, placing buoys and for improving harbors and directing surveys." The other was "an act to authorize a subscription of stock in the Louisville & Portland Canal Company."

His objections to the first bill were that the facilities were not needed and that the bill directed surveys of projects obviously local in character. As to the second bill he objected because it would involve the federal government in state and local affairs.

On December 6, 1832, President Jackson stated in a message to the House the reasons why he had killed by pocket veto "An act for the improvement of certain harbors and the navigation of certain rivers," which he said was not received a sufficient time before the close of the last session to enable him to examine it before adjournment. He stated that he had asked the "Engineer department" for a report showing appropriations for projects not of a national character. "By this report it will be seen that there is a class of appropriations in the bill for the improvement of streams that are not navigable, that are not channels of commerce and do not pertain to the harbors or ports of entry designated by any law or have any ascertained connection with the usual establishments for the security of commerce, external or internal."

### No End to Possibilities

President Jackson again stated his position in a message sent to both Houses of Congress on December 1, 1834, in explanation of his pocket veto of "an act to improve the navigation of the Wabash river." In his opinion this effort on the part of Congress to spend federal funds for local projects was of very great significance in maintaining the Constitution, in the prudent management of the public revenue and in its disturbing effect upon the "harmony of the union."

He did not think the individual was in danger of encroachments upon his personal rights but the government was not so safe from unconstitutional acts, "which, instead of menacing the vengeance of offended authority, proffer local advantages, and bring in their train the patronage of the government." He pointed to the fact that when he vetoed the appropriation for the Maysville road the bill included appropriations for other projects up to \$106,000,000 and contained other proposed obligations amounting to about \$100,000,000 in addition. If the trend should be allowed to go on, he thought there was not enough money in the world to meet the possible obligations. Since this project was local in character and the proposed appropriations for harbor and navigation aids were extravagant he had vetoed the bill.

President Tyler on January 11, 1844, vetoed a bill entitled "an act making appropriations for the improvement of certain harbors and rivers." He offered as his first objection that Congress had no constitutional power to make such appropriations. Congress, he said, has no power to appropriate money even for removing obstructions on navigable streams because such an act has local benefits. He proceeded to point out that

all improvements to rivers and harbors have in them a strong element of local benefit and, at the same time, an element of disastrous effect upon other localities. As an illustration he cites the item of \$20,000 for improving the harbor on the James river at Richmond, Virginia. This would be of advantage to the people of the city and would enhance the value of property there but would be disastrous to Petersburg, 25 miles up a branch of the James river, and if the improvement be extended up the Appomattox river to Petersburg it might yet be disastrous to Norfolk.

In his judgment the Mississippi river came under a wholly different policy. By express reservation that river belongs to the general government which has to preserve its free use to all people in the country. As to harbors, whether on the lakes or on the seaboard, if they can not be demonstrated as necessary to afford shelter and security to shipping against tempests or enemies, Congress has no power to give them aid.

"So, two thirds not voting in the affirmative, the bill was not passed."

On August 3, 1846, President Polk vetoed a bill entitled "an act making appropriations for the improvement of certain harbors and rivers." The act provided for the appropriation of \$1,378,450 "to be applied to more than 40 distinct and separate projects of improvement." The President said that upon examination he found "many of them of a local character" and he asserted that if passed the bill would break down all the constitutional restraints "upon the most extended system of internal improvements by the federal government in all parts of the union." The power of the federal government to make such appropriations as called for in this bill does not exist, he declared. "The approved course of the government and the deliberately expressed judgment of the people have denied the existence of such a power under the Constitution." He found, he said, some of the projects wholly local in character lying within the limits of the states and that some of the so-called harbors on the shores of the Great Lakes were not in fact harbors at all.

In his opinion the adoption of the principle underlying this bill would consolidate power in the federal government at the expense of the rightful authority of the states, would involve projects for the expenditure of public money for benefit of a few, would engender sectional prejudice and would produce "combinations of local and sectional interests strong enough when united to carry propositions for appropriations of public money which could not of themselves and standing alone succeed and can not fail to lead to wasteful and extravagant expenditures."

He pointed out that the bill carried appropriations for objects of no present necessity. The nation, he said, was at war and was borrowing money to defray expenses. It would inevitably, by the methods used here, be led to greater and greater expenditures, with an increasing debt and increasing taxes. "So the bill was rejected."

A second veto was made by President Polk on December 15, 1847, to a bill entitled "an act to provide for certain works in the Territory of Wisconsin and for other purposes." This bill was presented to him on the last day of the session and he refused to sign it. He gave his reasons at length, which are similar but in more detail as to the constitutional question than those in his previous veto.

In giving his reasons for the veto, President Polk pointed out that various states had undertaken in recent years large programs for internal improvement but without the constitutional safeguards of the federal government, with the result that state finances had fallen into such bad shape that the people had passed legislation forbidding the states to finance such projects. This situation stood as a warning, he thought, to the federal government. He pointed also to the fact that in years gone by public men had sought to gain public favor by promising large expenditures of public funds in communities, thus perverting legislative action to "the worst of political purposes." "Whole sections of the country were thus sought to be influenced, and the system was fast becoming one not only of profuse and wasteful expenditure but a potent political engine."

### "Local" Projects Questioned

President Pierce on August 4, 1854, vetoed a bill entitled "an act making appropriations for the repair, preservation and completion of certain public works heretofore commenced under the authority of law." As frequently happens respecting such bills, it reached him "in the expiring hours of the session."

The President's veto was brief, stating that while the bill contained certain items "national in character" and if confined to these he would sign it, "at the same time it embraces others which are merely local and not in my judgment warranted by any safe or true construction of the Constitution." He said that he recognized a general desire on the part of the people to have internal improvements pressed with energy, yet he was convinced that for the federal government to undertake a "general system of internal improvements" is both unwise and unconstitutional. He then promised a more extended presentation

of his views later. "So the bill was lost."

President Pierce on December 30, 1854, sent a message to both houses of Congress in accordance with his promise, which contained a more extended presentation of his argument against the rivers and harbors bill referred to above. In this message he covered the familiar ground of unconstitutionality. He reached the conclusion that the general government can appropriate money for a harbor or a navigable river if it "have reference to military or naval purposes" but that all other matters should be left to individual enterprise or to the states. This message "gave rise to debate, but no action on it was taken."

### Congress Overrides Pierce

In the following year, five river and harbor bills in succession were vetoed by President Pierce: (1) "An act to remove obstructions to navigation in the mouth of the Mississippi river" was vetoed as unconstitutional, and the President added that this applied "to the whole system of internal improvements, whether such improvements consist of works on land or in navigable waters, either of the seacoast or of the interior lakes or rivers"; (2) "an act making appropriation for deepening the channel over the St. Clair flats"; (3) "an act for continuing improvement of the Des Moines rapids in the Mississippi river"; (4) "an act making appropriation for deepening the channel over the flats of St. Mary's river"; and (5) "an act for the improvement of the navigation of the Patapsco river." All were vetoed upon the same constitutional grounds.

All of these vetoes were overridden in both houses. There was evidently in these cases strong difference of opinion between the President and Congress. It appears that the victory won by Congress was probably a turning point in public policy toward inland waterways.

President Buchanan sent a message to the Senate under date of February 1, 1860, explaining the reasons for a pocket veto of a bill entitled "an act making appropriations for deepening the channel over the St. Clair flats in the State of Michigan." He said that he had made a thorough investigation of the subject and he gave at length his reasons for refusing to sign it. In the first place, the project was already practically completed. In the second place, Congress had no power under the Constitution "to deepen the channels of rivers and to create and improve harbors for purposes of commerce." It was his opinion that the power of Congress extended only to the construction of internal improvements such "as may be essentially necessary for defense and protection against the invasion of a foreign enemy."

Growing more vigorous, the President pointed out that to secure funds for these projects, money would have to be borrowed and taxes increased. There is no limit, he thought, for the coast line including the Great Lakes is 9,500 miles long and measuring to the head of tide-water in each case 33,000 miles long. "This (country), everywhere throughout its vast extent, contains numerous rivers and harbors; all of which may become the objects of congressional appropriations." Every state, he said, would rightly have to be treated on an equal basis lest one may destroy the benefits of another. "The truth is that most of these improvements are in a great degree local in character, for the special benefit of corporations and individuals in their vicinity, though they may have an odor of nationality on the principle that whatever benefits any part indirectly benefits the whole." He thought, too, that "the time has now come for a final decision of the question."

"What a vast field would the exercise of this power open for jobbing and corruption!" he writes, and pictures members of Congress struggling for improvements within their own districts in order "to obtain from the treasury as much money as possible for their own locality. The temptation would prove irresistible. A system of 'log-rolling' (and I know of no word so expressive) would be inaugurated, under which the treasury would be exhausted, and the federal government be deprived of the means necessary to execute those great powers clearly confided to it by the Constitution for the purpose of promoting the interests and vindicating the honor of the country." These prophetic words may now be read in the light of subsequent events.

The President argued with great force that the power of Congress was derived from the power to regulate under the Commerce Clause and to say that the power to regulate is the power to create and construct is to "confound the meaning of words of well known significance." The regulating power, he said, presupposes, and necessarily so, the existence of the thing to be regulated. Arguing by analogy, he stated that the Constitution grants power to Congress to coin money and then separately and later grants it the power to "regulate the value thereof." The constructing of internal improvements was not contemplated in the Constitution, he asserted, but in fact was specifically denied Congress, for, when the proposition was made in the Constitutional convention to confer on Congress the power "to provide for the cutting of canals where necessary," the vote against it was 8 to 3. "It is not too much to assert that no human being in existence when the Constitution was framed entertained the idea or apprehension that by conferring on Congress the power of regulating

commerce, its framers intended to embrace the power of constructing roads and canals and of creating and improving harbors and deepening channels throughout our extensive confederacy."

President Grant in a message to the House dated August 14, 1876, registered his objections to the River and Harbor bill and gave "the reason I signed it." He said that "without enumerating, many appropriations are made for works of purely private or local interest in no sense national." As to these local projects he could not give his sanction and he would take care that no money was spent during his term of office upon them. There was need for national economy. It seemed likely that government revenues would decline and possibly no money at all could be spent for the protection of works already completed. His final statement was firm and definite—"Under no circumstances will I allow expenditures upon works not clearly national."

On August 1, 1882, President Arthur sent a message to the House containing the reasons why he vetoed a bill entitled "an act making appropriations for the construction, repair and preservation of certain works on rivers and harbors and for other purposes." His principal objection was that the bill contained appropriations "for purposes not for the common defense or general welfare and which do not promote commerce between the states." He thought they were for the benefit of particular localities. Such appropriations of public money he regarded as "beyond the powers given by the Constitution to Congress and the President."

### "Departure" from Constitution

There are peculiar evils, he thought, that invariably arise from such departure from the Constitution. Appropriations of this kind tend to increase in number and amount. One state or one locality secures a project and others demand one of like character. "Thus, as the bill becomes more objectionable, it secures more support."

In his opinion the funds to be appropriated by this bill were far beyond the needs of the country and could not be spent economically and advantageously. "The extravagant expenditure of public money is an evil not to be measured by the value of that money to the people who are taxed for it. They sustain a greater injury in the demoralizing effect produced upon those who are entrusted with official duty through all the ramifications of government."

He noted that this bill contained 370 separate and distinct waterway projects for which appropriations were made and in addition directed the Army Engineers to make surveys of 138 more.

President Cleveland under date of May

29, 1896, sent a message to the House carrying his veto of a bill entitled "an act making appropriations for the construction, repair and preservation of certain public works on rivers and harbors, and for other purposes." He pointed out in his message that there were 419 items in the bill representing every part of the country, that it directly appropriated \$14 million, which was in addition to another bill appropriating \$3 million, that it authorized contracts for river and harbor works amounting to more than \$62 million and that with other commitments already made the total amount of funds would be \$80 million. Further than this, the bill directed surveys and reports for additional expenditures. He noted that the expenditures for the last fiscal year were \$30 million for river and harbor projects.

### For Aid of Individuals

In discussing the reasons for his veto the President stated that many of the projects are not related to the public welfare and "many of them are palpably for the benefit of limited localities or in aid of individual interests." The bill, he said, contains projects on which money has been spent extravagantly and which were imprudently planned. Congress can not justify expenditure of public funds, he declared, on projects merely because approved by engineers, though this bill includes some not so approved and some disapproved by the engineers.

In a sweeping indictment of the bill, the President said:

to the extent that the appropriations contained in this bill are instigated by private interests and promote local or individual projects, their allowance can not fail to stimulate a vicious paternalism and encourage a sentiment among other people, already too prevalent, that their attachment to our government may properly rest on the hope and expectation of direct and special favors and that the extent to which they are realized may furnish an estimate of the value of government care.

No greater danger, he thought, faces the country than the nurturing by this means of the feeling among the people that the government is merely the "giver of gifts."

Of the two constitutional questions involved in these vetoes of waterway projects, one has been answered by the Supreme Court in a series of decisions. The meaning of "regulate commerce" has been extended so as to cover the authority to construct and maintain improved waterways. Chief Justice Marshall in *Gibbons vs. Ogden* said that any state law that created a navigation monopoly or set up a barrier against the flow of interstate commerce over navigable streams was "repugnant to said Constitution, and void." Full and complete power to regulate commerce, therefore, lay with the federal government. In *Gilman vs. Philadelphia* the Supreme

Court said Congress through the Commerce Clause had such complete power over the navigability of streams that it could sanction a complete obstruction to its use, in this case by a bridge. The meaning of "regulate commerce" was carried further in the decision of the Court in *South Carolina vs. Georgia*, wherein it said that when a state signed the Constitution it transferred, through the Commerce Clause, all of the power and authority over navigable streams that it previously held, to the federal government and that government could consequently interpose obstructions, remove obstructions, dredge, widen and divert channels. It could appropriate money for these purposes.

The second constitutional question on general welfare—that is, whether under the Constitution the federal government can appropriate funds for projects of a local character or for the benefit of one or a few individuals—has not been answered. Grover Cleveland's veto in 1896 rested upon the thesis that federal funds

can not be spent for local projects. He had behind him a long line of Presidential announcements to the same effect. No legislation since his time has undertaken to answer affirmatively with respect to this question. Notwithstanding, Congress has gone on making such appropriations, just as it continued voting funds while the controversy with regard to the meaning of "regulating commerce" was being carried on. Thus, at a hearing on River and Harbor bill H. R. 6407, held on April 4, 1946, General Wheeler, chief of engineers, U. S. Army, in stating the reasons why he approved the 278 projects in that bill, said: "All of these projects are responsive to the needs of local interests as freely voiced in public hearings."

While the constitutional problem remains unsolved and no foundation is laid for a public policy with respect to general welfare, Congress continues to appropriate large sums of public money for projects of a local and state, and not of national and general benefit.

## How Much Is Diesel Fuel Ousting Coal?

(Continued from page 489)

tons of coal for \$296,148,309. During the corresponding period of 1946 they bought 93,244,764 tons at a cost of \$295,913,527—a reduction of 10,470,917 tons in 1946, but a reduction in the cost of only \$234,782.

Coal prices increased steadily from an average of \$1.95 a ton in 1933 to \$2.34 in 1937, and to \$2.48 in 1941, and estimates of the Bureau of Railway Economics of the Association of American Railroads, based on purchases for the first 10 months of 1946, indicate that

Table I—Coal Production vs. Railway Purchases

	Bituminous Coal and Lignite Production Net Tons	Railway Coal Purchases Net Tons	Per Cent of Total
1933	333,630,000	75,486,947	22.6
1934	359,368,000	79,493,809	22.1
1935	372,373,000	81,286,385	21.8
1936	439,088,000	91,706,723	20.9
1937	445,531,000	91,718,059	20.6
1938	348,545,000	74,783,697	21.4
1939	394,855,000	81,812,613	20.7
1940	460,771,000	88,595,490	19.2
1941	514,149,000	104,099,613	20.2
1942	582,693,000	120,910,135	20.7
1943	590,177,000	129,738,453	22.0
1944	619,576,000	135,579,265	21.9
1945	577,617,000	124,219,729	21.5
1946*	532,000,000	112,000,080	21.0

\* Estimated.

bituminous coal prices during 1946 averaged approximately \$3.17 a ton.

Expenditures by Class I railroads for materials and supplies during the period 1933-1946, inclusive, aggregated \$14,-

236,458,000—a yearly average of \$1,016,889,857. One of the largest items on this huge buying list was fuel—coal, fuel oil and Diesel fuel. Fuel supplies during this period accounted for from 41.8 per cent of the total expenditure in 1938 to a low of 30.1 per cent in 1941. Even during 1933, as is seen in Table II, the

Table II—Relation of Fuel Purchases to Total Purchases

	Total Purchases Materials and Supplies (000)	Fuel Purchases (000)	Per Cent of Total
1933	\$ 465,850	\$180,526	38.7
1934	600,224	217,294	36.2
1935	593,025	232,723	39.2
1936	803,421	272,270	33.9
1937	966,383	294,293	30.4
1938	583,282	243,783	41.8
1939	769,314	257,273	33.4
1940	854,463	273,556	32.0
1941	1,161,274	349,765	30.1
1942	1,259,811	426,335	33.8
1943	1,394,281	527,296	37.8
1944	1,610,529	585,832	36.4
1945	1,572,404	555,155	35.3
1946*	1,602,197	553,965	34.6

\* Estimated.

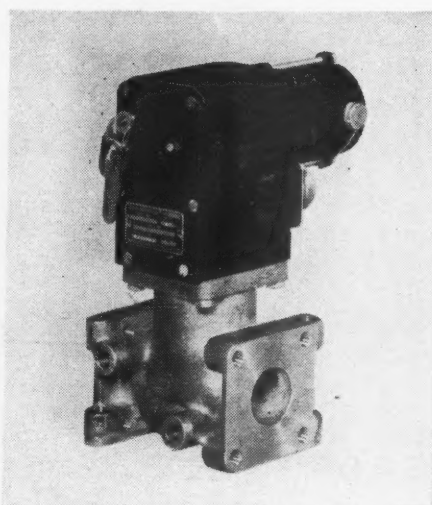
carriers spent \$465,850,000 for materials and supplies, and 38.7 per cent of this sum, or \$180,526,000, was devoted to replenishing fuel stock piles. By 1937 annual purchases almost doubled the 1933 expenditure, and amounted to \$966,383,000. Of this total, \$294,293,000, or 30.4 per cent, was spent for coal, fuel oil and Diesel fuel. Total railway purchases took a nose-dive in 1940, compared with the 1937 total, but fuel purchases in that year remained relatively high at \$273,556,000, or 32 per cent of the total expenditure for materials and supplies.

# Electronic Air Conditioning Control for Railway Passenger Cars

System utilizes panel radiant heating; heat exchanged to a non-freezing liquid circulated in the radiators; and a new principle of electronic temperature control

**A** SYSTEM of air-conditioning control which, in place of thermostats with moving parts, consists of a Wheatstone bridge, one leg of which is placed at the point from which temperature control is to be effected, has recently been produced by the Minneapolis-Honeywell Regulator Company, Minneapolis, Minn. A change of a small fraction of a degree will upset the delicate electrical balance of the bridge, and this unbalance is amplified electronically to operate the control valve or valves. A number of such controls are placed at strategic points inside and outside the car and serve almost to anticipate the need for changes in the amount of heating or cooling required. This system is to be tested by the Chesapeake & Ohio.

Another feature of the system is the use of a heat exchanger from which heat is transferred to a non-freezing



Electronic modulating valve—Motor which has 140 positions and sealed life-lubricated gear train is shown at top. The valve body is packless

liquid which is pumped through the finned-tube radiators which supply side-wall heat. This arrangement distributes the heat evenly to each seat in a coach or each room in a sleeper. This makes it possible to have the heating surface at a temperature which just compensates for the heat loss through the shell of the car. The overhead heating controls are made to dominate and there is never any confusion between overhead and side-wall controls, which may cause uncertainty in the work being done by the system.

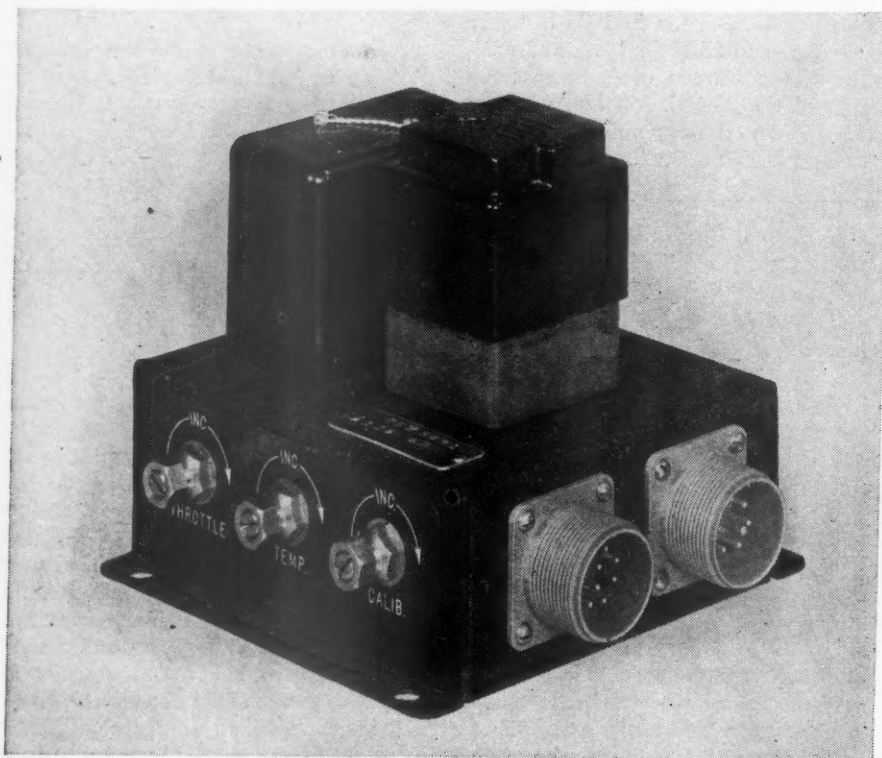
Sidewall panels spaced away from the inside surface of the car, behind which heated air rises from the floor heating units, eliminate the chilly surface against the arm of the passenger in the window seat.

To appreciate fully what this type of control system does for passenger comfort, it is necessary to consider a few of the fundamental requirements.

## Object of Air Conditioning

The human body has its own heating system and its own temperature control. The problem is to make it possible for the human body to dissipate its excess heat at a rate which involves the least effort and provides the greatest comfort. Body heat is lost through radiation, convection, evaporation, and respiration. The body radiates heat to surrounding walls, windows, and other objects which are at a lower temperature. The body gives up heat to the surrounding air by convection when the air is cooler than the body surface temperature. Moisture is constantly evaporating from the body surfaces, thus providing for cooling, and air taken into the lungs at normal temperatures is exhaled at higher temperatures, thereby removing a certain amount of heat. There is a narrow range of atmospheric conditions in which comfort is sensed, and any changes in atmospheric condition, which require a change in the rate of heat loss, or a change in the manner in which heat is lost, cause a certain amount of discomfort.

Conditions affecting comfort which may vary within a car are air temperature, air movement, relative humidity,



Bridge and relay unit

and the temperature of the walls, windows, and other objects. If any of these conditions change, the body must adapt itself to the new conditions by a change in the rate or manner of losing heat, thereby establishing a new balance. The air conditioning system should establish the proper space conditions to maintain at all times maximum bodily comfort.

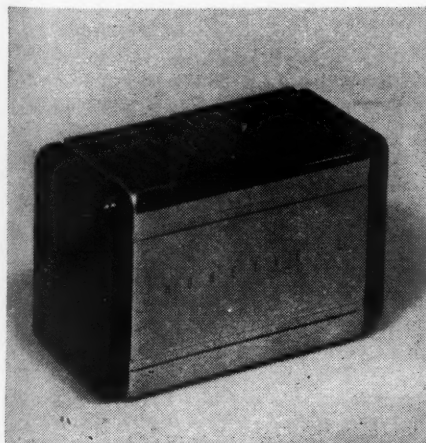
In addition, the temperature throughout the space should be as nearly uniform as possible so that there will be a minimum temperature difference between floor and ceiling. Frequently cold floors and sidewalls permit uncomfortable conditions to prevail even though the space thermostat is satisfied. To correct this condition, a continuous flow of heat or cooling should be maintained which will produce a constant circulation of conditioned air in the passenger car. This will result in minimum temperature differences between floor and ceiling and give maximum human comfort.

"Moduflow" is a new word which the manufacturer has coined to stand for modulated heat, or cooling with continuous flow of the heat medium (air, water, steam, electricity). Modulated control disposes of "on and off," or intermittent heat supply, and is made to meet the increasingly exacting demands of car air conditioning.

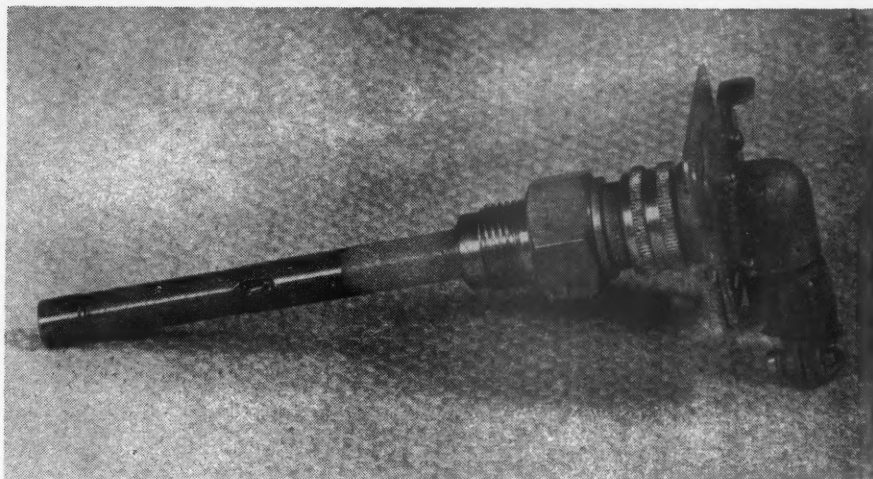
### System Requirements

Heat loss from a car is continuous, but the rate of loss varies with the weather, train speed, tunnels, etc. Therefore, the heat supply should also be continuous and modulated to whatever rate is required exactly to offset the heat loss, thus maintaining a continuous balance between heat loss and heat supply.

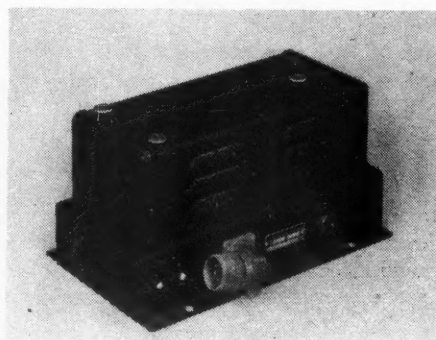
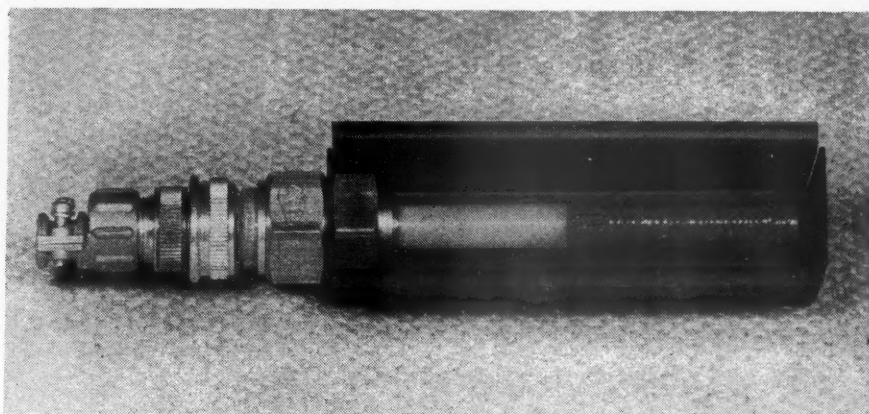
Several basic fundamentals determined by test indicate certain system design and control deficiencies which make it difficult to provide the hourly, daily and year-round comfort requirements of all



Thermostat for wall mounting



Above—Thermostat for duct mounting with mechanical "snap-on" to duct and quick electrical disconnect A-N connector. Below—"Skin thermostat" for surface mounting



The amplifier, which serves up to nine individual bridges when desired in multiple zone cars

the various operating conditions. This is evident from the following:

(1) Car or individual room temperatures are dictated by the overhead air system. Therefore, in order to compensate immediately for internal changes caused by opening end doors, sun versus no-sun effect through windows, change in internal passenger load, etc., it follows that to properly rebalance space temperature immediately the delivered air temperature must be constant for any one set of outside and inside conditions

and must also have variable discharge temperature characteristics under control of an accurate modulating valve, directly controlled through a sensitive, responsive car thermostat.

(2) The overhead air system and floor heat must work as a team, and the floor heat surface must provide satisfactory compensation for variation in heat transfer (radiant or conducted) through opposite sides of a car. This condition exists during either the cooling or heating season.

To fulfill all of these requirements, the Minneapolis-Honeywell system employs side wall heating which consists of a radiant panel incorporating a finned surface filled with a newly developed liquid solution (tetracresylsilicate) circulated in a closed system principle. During normal operation the liquid temperature will be varied under control of a modulating valve and skin temperature thermostat adjacent to the outside covering of the car so that the radiant panel temperature will be maintained at such a temperature as to eliminate the cold sidewall effect on the passenger. Separate control will be provided for each side of the car to compensate for sun versus no-sun.

(Continued on page 501)



Warren R. White (R), Union Pacific container engineer, shows O. J. Wullstein, general freight claim agent, how the unprotected legs of tubular steel folding chairs punctured the end of their carton during transportation

First year of work of  
"container engineer" in-  
dicates that good packag-  
ing conduces to damage-  
less freight movement

## U. P. Container Engineering a Boon to Customer Relations

ONE year of trial of the full-time services of a special container engineer has convinced the Union Pacific that this recent innovation in carrier management has proved "highly successful" not only in increasing loss and damage prevention, but in improving relations with the railroad's customers—the shippers and receivers of freight. The program has saved the railroad many thousands of dollars by forestalling claims payments; it has also given the shipping public tangible savings in eliminating disappointment and inconvenience and the necessity for filing claims. In this connection, it is noteworthy that many commodities are valuable beyond their price, because they are in the "scarce" category. Finally, manufacturer - to - consumer distribution has been speeded by the elimination of delay resulting from the shipment of replacements for lost and damaged items.

The railroad has already received more than a hundred letters expressing appreciation of the packaging service it has rendered. One written by a large eastern manufacturer, which is typical of the lot, confessed that, prior to working with the Union Pacific's representative, the shipper generally ascribed loss and damage to rough handling by the

carrier. But a report by the container engineer "disclosed the source of this trouble in our own plant and enabled us to prevent future occurrences."

### Course of Action Simple

The curve indicating the freight damage bill of the railroads has moved upward during the war and subsequent reconversion period. Shortage of competent packagers in industry, inferior packaging materials, and a lack of shipping help were wartime factors which could not be overcome. But, with the close of hostilities, the U. P.'s management believed the standards of packaging should not only be raised to pre-war standards, but pushed far beyond. To assist shippers to solve the problems presented by shipping—particularly those new businesses founded during the war which have peculiar packaging problems—Warren R. White, a container engineer of 20 years' experience, was, shortly after V-J Day, brought by the railroad direct from the Navy where he had served at home and overseas as a container and packaging engineer.

The course of action which Mr. White took was direct and simple, although the scope of his activities was unusually

broad. The first step in the U. P.'s new program of "container engineering" is *investigation*. Instances of container failure are brought to the attention of the company's freight claim department from observation of freight at stations, at the origin of shipment, at transfer points, and at the destination of shipment; from bad-order reports submitted by railroad agents; and from specific claims received at freight claim offices. While much of the observation is personal on the part of the container engineer, the road has noted an increase in efficiency on the part of its local freight inspectors and freight service inspectors as a result of working with the container engineer. In short, they have become "container-conscious" and have learned to recognize basic packaging and container failures which result in damage.

The next step is *analysis of failures*. This is the technical high point of the damage prevention effort and the nucleus of its success. Without competent probing of container faults, the program would have no substantiation.

With the container flaw uncovered, the container engineer prepares a report for O. J. Wullstein, general freight claim agent. To date, hundreds of these re-

Pacific  
Wull-  
agent,  
tubular  
the end  
rtation

of  
in-  
ag-  
ge-  
ent



Above—A stove crate, with well-constructed, three-way corner, insures undamaged shipment. Right—The container engineer looks for bad practices like this—lack of diagonal bracing for a windmill pump crate



ports have been filed and action taken on them. In many instances, the reports are accompanied by drawings or photographs to illustrate more clearly points at issue.

### Letters or Personal Calls

On the basis of these reports, letters are sent to the receiver, or to the manufacturer (if other than the shipper) concerned, outlining the damage sustained, describing what occurred, stating the analysis of the trouble, and suggesting what corrective measures may be taken. Written in a spirit of friendliness and helpfulness, the aim of such letters is to guide and to assist, rather than to criticize.

Finally, when circumstances warrant, the container engineer calls in person on the shipper or the receiver, or both, talking to executives and working closely with their engineers. Not all container failure cases warrant personal calls—generally a letter is sufficient—but the on-the-spot contact has proved valuable in the remedy of serious defects. For example: Three carloads of water heaters shipped by a West Coast concern to a distributor in a city nearly a thousand miles away arrived so badly damaged they had to be returned for repairs. Before this was done, however, the injured heaters were minutely inspected by U. P.'s container engineer, who recognized the cause of damage as im-

properly-designed crates. In a visit to the manufacturer, he suggested corrections in the crate design which would decrease the possibility of damage. The suggestions were adopted and cars of heaters subsequently shipped arrived at their destination without damage.

Another case concerned stoves, manufactured in the East, which had a consistent record of damage in transit. After a thorough investigation, the container

engineer decided that the lack of through structural members in the stove and of lock washers in the bolting thereof permitted a "weaving" action during transportation, resulting in cracking and chipping of the enamel. After a conference between the engineer and the manufacturer, changes in the construction of the stove were adopted. Thereafter, shipments of this stove model were made without damage.

### Electronic Air Conditioning

(Continued from page 499)

(3) Since humidity conditions play an important part in passenger comfort some humidity limit or control should be maintained depending on climatic conditions under which the cars usually operate. The method of two-staging the cooling coils under control of a dry bulb thermostat will not always take care of many intermediate spring-fall days, since every "off" cycle of the compressor permits a rise of internal humidity and often causes frequent machine short cycling. To establish definite maximum humidity limits for passenger comfort under most of these conditions, the cooling system is operated under full or half capacity to effect constant moisture removal and the air reheated to provide

a satisfactory space temperature. Since this method requires accurate and continuous control of overhead air temperature, this new system inherently adapts itself to positive humidity control.

(4) Whereas conditions in coach, dining, lounge and open-space cars must be regulated at a point satisfactory for the group, the problem differs considerably if the objective desired is individual or personalized temperature selection in room type sleeping cars.

Individuals in their own home will put up with a lot of unsatisfactory performance if the system is one which they personally decided was the "best" equipment to buy. This is contrary, however, to the attitude of the average railroad passenger who reasons, "This railroad has been advertising its marvelous air conditioning system, and now I want to retire and though I twist this knob as

P.'s  
ring"  
tainer  
on of  
ment  
tions,  
nsfer  
ship-  
mitted  
pecific  
ffices.  
per-  
engi-  
se in  
eight  
ctors  
con-  
have  
have  
aging  
lt in  
ures.  
f the  
cleus  
prob-  
gram  
l, the  
t for  
claim  
e re-

much as I can, I still can't change this room temperature to the level I am accustomed to for sleeping."

The present room car heating is effected by admitting more or less steam to the floor heat surface. Since the overhead air supply dominates in room temperature, means must be provided for actually varying the delivery air temperature to each individual space if personalized room control is to be had.

One way this can be accomplished is by installing small individual booster heater coils in the supply air duct to each room. Liquid is supplied to each booster unit from the same heat exchanger source supplying the two side wall radiant panels. The new room control system will consist of a manual control point selector, resetting an electronic room thermostat which in turn accurately modulates the flow of liquid to the booster and provides constant room temperature at the desired level. This system provides a definite means of humidity control through the reheat method and also definitely compensates for the present overheating of rooms continuously subjected to sun effect on certain main line runs.

### Manual Control Not Accurate

(5) Change-over from heating to cooling, and vice versa, cannot satisfactorily be done manually. The average human being cannot sense the right moment. This is especially true of the train crew or porter because they are active while the passengers are at rest. Secondly, this moment of correct change-over may occur scores of times a day, which is certainly asking the impossible of the train crew. Change-over is automatically accomplished in the new electronic system to avoid first, heating overshoot, then cooling undershoot, since the same car thermostat is used for heating and cooling.

The electronic temperature control consists basically of a Wheatstone bridge with one leg used as a resistance thermostat. Changes in temperature around the thermostat cause the coil of wire to vary its resistance and thereby unbalance the electronic bridge. In this way, an unbalance of the bridge in one way will call for cooling, and an unbalance in another way will call for heating, giving automatic change-over which can be made practically instantaneous.

Electronic means are used to amplify the unbalance of the bridge sufficiently to cause a polarized relay to operate a reversible motor connected to a valve, damper motor or step controller. This makes it possible for the valve to assume any one of 140 positions to exactly meter the right amount of steam or liquid required.

The use of a coil of wire as a thermo-

stat introduces one of the revolutionary changes in railway car temperature control, and the bridge principle provides complete flexibility for any combination of controls or sequence required. Very

little mass surrounds the coil of wire which is the thermostat, and this coil is sensitive to about one-tenth of a degree Fahrenheit, providing extremely fast reaction.

## "Inequality" of Carrier Taxes

Subcommittee of Railroad Committee for the Study of Transportation calls for removal of discriminations against railroad transport

THE Subcommittee on Taxation of the Railroad Committee for the Study of Transportation has issued a report on "Inequality of Taxation Among the Several Forms of Transportation," which arrives at 15 conclusions and recommendations as a result of its consideration of taxation principles, railroad taxation, and "discrimination in various types of transportation taxes." The study group out of which the report has come is part of the research set-up, sponsored by the Association of American Railroads, which has been functioning for the past four years under the general chairmanship of A. A. R. President R. V. Fletcher, formerly vice-president—research.

Karl Fischer, assistant to president of the Chicago, Burlington & Quincy, is the Subcommittee on Taxation's chairman, while its editor and consultant is Dr. H. K. Snell, assistant to vice-president, A. A. R. The report, a document of 33 double-column pages, is based on material "gathered from as unbiased sources as are available, principally the work of the Board of Investigation and Research created under the Transportation Act of 1940." Previously, the report had pointed out that the B. I. R. report, "Carrier Taxation," was the result of the most recent inquiry into the relative burden of taxation upon the various forms of transportation.

### Recommendations

As summarized in the report the conclusions and recommendations included the following:

Overtaxation of railroads compared to most of their competitors was found by the federal board [B. I. R.] assigned to the task of studying the taxation problem.

Railroads are the basic internal transportation agency, essential to the safety and development of the nation. Any detrimental factor, such as inequitable taxation, should be corrected.

User charges paid by carriers operating on publicly financed airways, highways and

waterways are erroneously called taxes. Such misuse confuses the problem of establishing equitable tax systems. User charges should be more extensively required of such transport.

A property tax equivalent, paid by those using publicly financed facilities, in addition to adequate user charges, is fair and sound taxation policy.

Any trend toward additional government ownership of projects will increase the burden on property tax payers and should be avoided.

Under normal economic conditions the principal railroad tax is the property tax paid to state and local governments, although federal income taxes assumed first place in war years.

Railroad retirement and unemployment taxes constitute normally the second largest tax burden on the carriers and, compared with other forms of transportation, are higher in percentage, on a broader base and inequitably administered. Such discrimination should be abolished.

Excise taxes, such as gasoline, oil, coal, and sales taxes, are charged to cost of the commodity by railroads, and not to tax accruals as is done by other forms of transportation. The result is a distortion of comparison in the amount of taxes paid. Clarification of the record is necessary.

Ad valorem tax assessment methods among the states are not uniform or equitable nor are they equalized with assessments of other real and personal property. Improved methods are desirable.

Railroads are carrying more than their fair share of property taxes; other forms of transportation should assume an increasing proportion of the burden.

Highway for-hire operators, although they receive all benefits from state and local governments, pay low ad valorem taxes compared to book value of their property and averages of other urban property. Exemptions and lax methods responsible for it should be eliminated.

Although air lines pay low taxes by any fair standards of taxation and are assessed insufficient user charges, they have requested more favorable treatment. Air transport should be subjected to adequate business taxes in all tax jurisdictions.

Water transportation, even to a greater extent that highway transportation, is conducted principally by private carriers. This, in addition to non-existent user charges for extent than highway transportation, is con- and inadequate property taxation, is an inequitable condition requiring correction.

The report also summarized a June, 1946, report on the taxation of trans-

portation which was made by a special committee of the National Tax Association. The summarization shows that this N. T. A. committee recommended: (a) Reduction of railroad payroll taxes; (b) removal of unemployment-compensation payroll tax discrimination against the railroads; (c) equalization of the property tax for all carriers by raising it for air, highway and water transport; (d) establishment of the principle of property-tax equivalent for transportation using government-financed facilities; (e) increased attention to adequate user-taxes; (f) repeal of the war-time transportation tax.

An appendix to the report considers

"anti-diversion" amendments to state constitutions, finding that "since motor vehicle taxes are insufficient to pay all street and highway costs, diversion is a myth used to obscure other tax issues."

"Because of difficulties which might result from a policy of using each tax collected for the benefit of the particular group paying it," the report also found, "there is merit in the argument that all tax receipts be placed in the general fund of state governments. . . . If highway-user revenues are not to be diverted to general governmental uses, it is logical that general government receipts from other sources should not be diverted to finance highways."

mercial rates." The scope clause "is restricted both by the nature of the property shipped and the use to which it will be put at the end of the transportation."

Relying mainly on provisions of the Lend-Lease Act, which the court noted was enacted about six months after the Transportation Act of 1940, the government pointed out that in the case of every lend-lease shipment there was a finding by the President that the shipment would "promote our national defense." And it followed through to contend that unless the administration of the Lend-Lease Act is "impeached," all lend-lease "defense articles" fall within the except clause and are entitled to land-grant rates.

The court conceded that under conditions of modern warfare many civilian activities become defense activities, and it asserted that the use of materials by an ally rather than by this country would not be controlling. But its "difficulty" arose when it was asked to "transplant" the standards of the Lend-Lease Act into the Transportation Act.

## Rules on Land-Grant Rates Under 1940 Act

Supreme Court says "controlling test" is the use  
made of materials shipped by the government

**I**NTERPRETING the Transportation Act of 1940's land-grant-rate provisions, the Supreme Court this week made "the use to which the property is dedicated or devoted" the "controlling test" in its determination of what war-time shipments of the government were entitled to the rate discount which that partial repealer left applicable on "military or naval property of the United States moving for military or naval and not for civil use." The partial repealer was in effect throughout the war, complete repeal having since been brought about by the Boren Act of December, 1945, which became effective October 1, 1946.

The Supreme Court's interpretations, both affirming lower-court rulings, came in two opinions—one upholding railroad contentions that full commercial rates were applicable on lend-lease shipments of phosphate rock and superphosphate for use as farm fertilizer in Great Britain and the other upholding government contentions that land-grant rates were applicable to shipments of five types of property destined for ultimate use by the country's armed forces. The latter were copper cable for use in the installation of degaussing equipment (a defense against magnetic mines) on a cargo vessel being so built that it might readily be converted into a military or naval auxiliary; lumber for the construction of a munitions plant; lumber for the construction of pontoons for the

Marine Corps; bowling-alley equipment for recreational facilities at the Dutch Harbor, Alaska, naval air base; and liquid paving asphalt for the Army's Cold Bay, Alaska, airport.

The opinion wherein railroad contentions were upheld was delivered by Justice Douglas, with the dissent of Justice Rutledge noted. It involved suits brought in the lower courts by the Seaboard Air Line and Atlantic Coast Line to recover differences between land-grant rates and full commercial rates which were withheld by the government on the basis of its contention that the discount applied to the lend-lease shipments. The S. A. L. is a land-grant road while the A. C. L. had filed the usual equalization agreement whereby it agreed to accept land-grant rates for shipments which the government could alternatively move over a land-grant road.

### Limitations on Type

As the court set it up, the question presented in these cases was whether the fertilizer was military or naval property moving for military or naval use. It found that while the legislative history of the 1940 act "throws no light on the scope of the except clause," it is "apparent from the face of the statute that there are important limitations on the type of property which must be carried at less than the applicable com-

### For Peace as Well as War

The opinion went on to note that when the latter was passed in September, 1940, Congress and the nation "were visibly aware of the possibilities of war," and the "realities of total war were then plain to all." But the standard written into the partial repealer "did not reflect the necessities of the national defense or the demands which total war makes on an economy. It used more conventional language—'military or naval' use as contrasted to 'civil' use." Also, the language "emphasizes a distinction that would be largely obliterated if the requirements of national defense, accentuated by a total war being waged in other parts of the world, were read into it." Moreover, the standard was designed to determine the application of land-grant rates "in peace as well as in war."

Thus the court concluded that the statute would have "constant meaning" only if "the distinction between 'military' and 'civil' which common parlance marks is preserved." It proceeded to decide on that basis, noting at the same time that the legislation under consideration left land-grant rates applicable also to "the transportation of members of the military or naval forces of the United States (or of property of such members) when such members are traveling on official duty. . . ."

"That clause," the opinion continued, "plainly does not include the multitude of civilians employed by the government during the war and exclusively engaged in furthering the war effort, whether they be lend-lease officials or

not. Thus the entire except clause . . . will receive a more harmonious construction if the scope of 'military or naval' is less broadly construed so as to be more consonant with the restricted sense in which it is obviously used in the personnel portion of the clause."

The court's finding that the "use" test is "controlling" was developed in the other opinion, a unanimous decision, delivered also by Justice Douglas. There the Northern Pacific, a land-grant road, brought suit to recover the difference between full commercial rates and land-grant rates on the five types of property involved:

Among other evidence, it was brought out that work on the Cold Bay, Alaska, airport into which the liquid paving asphalt went was originally under the supervision of the Civil Aeronautics Authority. This gave rise to a suggestion that shipments to this "civilian agency" were not "military or naval" property. The court found "no merit" in the suggestion, since "civilian agencies may service the armed forces or act as adjuncts to them." On the same grounds, it rejected contentions that materials shipped for the construction of vessels for the Maritime Commission and used to service troops would not be "military or naval property."

#### Eventual Use Is the Test

The opinion went on to concede that military or naval property may move for civil use, "as where army or navy supplies are shipped for sale to the public." It added that "in general the use to which the property is to be put is the controlling test of its military or naval character."

"Pencils as well as rifles may be military property," the court continued. "Indeed, the nature of modern war, its multifarious aspects, the requirements of the men and women who constitute the armed forces and their adjuncts, give military or naval property such a broad sweep as to include almost any type of property. More than articles actually used by military or naval personnel in combat are included. Military or naval use includes all property consumed by the armed forces or by their adjuncts, all property which they use to further their projects, all property which serves their many needs or wants in training or preparation for war, in combat, in maintaining them at home or abroad, in their occupation after victory."

"It is the relation of the shipments to the military or naval effort that is controlling. . . . The property in question may have to be reconditioned, repaired, processed or treated in some other way before it serves their needs. But that does not detract from its status as mili-

tary or naval property. . . . An intermediate manufacturing phase cannot be said to have an essential 'civil' aspect, when the products or articles involved are destined to serve military or naval needs. It is the dominant purpose for which the manufacturing or processing activity is carried on that is controlling. Measured by that test, there can be no doubt that the five types of property involved in the present litigation were 'military or naval' property of the United States 'moving for military or naval and not for civil use'. . . ."

Meanwhile, the court rejected contentions to the effect that the partial repealer was "remedial" legislation which should be "liberally construed as to permit no exception which is not required." In this connection it referred to the "familiar rule that where there is any doubt as to the meaning of a statute which 'operates as a grant of public property to an individual, or the relinquishment of a public interest,' the doubt should be resolved in favor of the government and against the private claimant."

## Eastern Roads Would Lift Passenger Fares

Seek rates of 2.5 cents per mile in coaches and 3.5 cents in Pullmans

**R**AILROADS of the Eastern district and Pocahontas region have applied to the Interstate Commerce Commission for authority to increase basic fares from 2.2 to 2.5 cents per mile in coaches and from 3.3 to 3.5 cents per mile in parlor and sleeping cars, and to raise commutation and "other forms of multiple fares" in some instances by specific amounts and in others by approximately 20 per cent. The New York, New Haven & Hartford, which is seeking similar increases in a separate proceeding already under way, is not a party to the present petition, and the Pennsylvania and Central of New Jersey are not parties insofar as increases in commutation and other multiple fares are sought.

In asking the commission to institute an investigation into the level of fares, the petition asserts that "under the present fares and expected volume of traffic in 1947, petitioners' passenger service will unquestionably revert to the pre-war status of a deficit operation." In this connection it is argued that "passenger traffic reasonably and justly should contribute something toward meeting the increased operating expenses which have been incurred in providing passenger service since the present fares were established in 1942."

This establishment of the present fares in 1942 came about as a result of that phase of the commission's Ex Parte 148 order which authorized increases of 10 per cent above the two-cents-per-mile coach fare and three-cents-per-mile Pullman fare which the commission had fixed by its order of February 28, 1936. The Ex Parte 148 order authorized the 10 per cent increase

on a temporary basis for the war period, but the commission's Ex Parte 162 report of December 5, 1946, removed the war-period limitation.

Noting that the impact upon the railroads of increased wages and other costs was described at length in the Ex Parte 162 hearings during the latter part of last year, the petition gives a highlight review of the situation. Current wage rates, it says, are 19.6 per cent higher than those prevailing in 1945 and 46.9 per cent above 1940. On the basis of estimated 1947 traffic, the petition continues, the current year's payroll will be \$300 million greater than if 1945 wage rates applied and \$585 million greater than at the 1940 rate of wages. And paid-vacation agreements have further increased costs by \$35 million a year.

Fuel, materials and supplies are currently at a price level 20 per cent above 1945 and 60 per cent above 1940. The 1947 outlay in this connection is expected to be \$125 million more than it would have been at 1945 prices, and \$275 million more than at 1940 prices. Other factors which will contribute toward making 1947 costs "substantially greater" than those of 1946 are the increased payroll taxes levied by the Crosser Act for the railroad retirement system, and the effectiveness throughout the year of the additional 2½ cents per hour increase in wage rates which became effective last May 22, the other 16 cents of the 18½ cents raise having been made effective as of January 1, 1946.

The petition also refers to that part of the commission's Ex Parte 162 re-

port which had noted that the 1946 net railway operating income of roads in the Eastern district comprised a return of "only 1.81 per cent." This became 0.83 per cent on the basis of the figures as restated by the commission's Bureau of Transport Economics and Statistics to eliminate "extraordinary charges for accelerated amortization of defense projects and concurrent tax credits."

While figures were not available to show the actual results of passenger service operations for 1946, the petition says that such operations "probably" resulted in a deficit because of the increased costs and reduced volume. For the war years, 1942 to 1945, inclusive, the passenger operations of the petitioning roads were in the black, but such profits came after many years of deficits, the 1941 loss being \$98,843,000.

The importance of passenger business to the eastern lines is pointed up by the petition when it says that their 1945 revenue from that source amounted to 20 per cent of their gross while the 1946 proportion was 18 per cent. Their total passenger revenue in 1946 was \$613,535,000, the estimated breakdown being as follows: Coach, \$377,324,000; sleeping and parlor cars, \$188,355,000; commutation, \$47,855,000. The petitioners estimate that their 1947 passenger revenues, on the basis of present fares, would amount to \$455,500,000.

### Increases Are Insufficient

"In view of the very large proportion of petitioners' revenues which are derived from passenger traffic," the petition also says, "the increases in freight rates and charges, which became effective January 1, 1947, will not yield sufficient revenues to offset all of the increased costs now being sustained by petitioners. . . . The current and anticipated volume of passenger business is such a substantial and important part of petitioners' business that it is essential to their financial well-being that increased revenues be secured for handling the traffic."

Reference is also made to the fact that the railroads are now receiving and have on order for delivery during 1947 "a large number of units of modern, improved and attractive passenger equipment which will cost many millions of dollars." This equipment, the petition adds, is being acquired at prices "greatly in excess" of those prevailing in the pre-war period; and its use along with improved passenger service generally "has increased and will increase the value of petitioners' passenger service to the public and should enable petitioners more successfully to meet the competition of the private automobile and other forms of transportation."

Because a "very substantial" propor-

tion of petitioners' passenger revenue is derived from intrastate traffic, the commission is advised that like petitions will be filed with state regulatory authorities. Thus the petition suggests that the cooperation of interested state authorities be invited in any proceeding that the I.C.C. may institute.

If authority is granted to increase the basic one-way fares as sought, the

## NEW BOOKS . . .

*Railroading from the Rear End*, by S. Kip Farrington, Jr. 430 pages. 8¾ in. by 5¾ in. Bound in cloth. Illustrated. Published by Coward-McCann, Inc., 2 W. 45th street, New York. Price \$5.

Another in a series of volumes about railroading by one of the country's most famous fishermen and ornithologists, this latest work is a *potpourri* of articles about individual railroads which, for one reason or another, have won the author's love and admiration. Railroads to which at least one chapter is accorded are the Santa Fe, Milwaukee, B. & M., New York Central, C. & O., S. P., Burlington, N. & W., Rio Grande, B. & O., Great Northern, A. C. L., Erie, C. & N. W., and the Luzon Military railroad in the Philippines. Some of these roads sufficiently attracted the author to be the subject of more than one article. The Santa Fe gets five. In addition, there is a chapter each on inductive train communication, the American Locomotive Company, and the introduction of coast-to-coast through passenger car service.

Within the chapters devoted to individual railroads there are featured subjects which might well be applied to all the carriers, such as the installation of centralized traffic control, movement of perishable trains, private railroad communication systems, and research on the railroads. Because he saw them in action on particular carriers, however, the author has preferred to describe such developments "in microcosm." For the general public, this method of exposition is perhaps unfortunate, because it gives the impression that these developments and improvements are peculiar to the particular carrier under which they are described. For the railroader-reader, of course, there can be no such confusion, and the manner of treating them specifically, rather than generally, he may well consider helpful and wholly satisfactory.

It is quite clear that Mr. Farrington takes railroads along with fish and birds—to wit: as high adventure. This spirit of boyish excitement runs through all the pages. But, unlike so many railroad devotees, the author is not swept away by considerations of the romance of the past, nor is he interested excessively in those elements of present-day railroading which may be described as "old fashioned." On the contrary, Mr. Farrington is a complete modernist; he hails the latest thing out of the shop and sings its praises. And he is sufficiently versed in the economics of the business to place the weight of emphasis where it belongs. For a layman, he possesses a remarkable understanding of the

petitioning roads, other than those in the New England region, propose to sell reduced-rate, round-trip tickets with a three-months time limit. These round-trip fares would apply to distances in excess of 200 miles, the first-class rate thereafter falling gradually to 3.1 cents per mile at 700 miles or more, and the coach rate to 1.9 cents at 500 miles or more.

important things to be sought in analyzing a carrier.

It might be pointed out that virtually all of the material in Mr. Farrington's book has been printed before in technical magazines and books, or made known by the railroads themselves, but its re-description in the racy style which Mr. Farrington accords it proves a useful contribution to the field of railroad literature. The photographs are excellent and well grouped throughout the volume.

*International Rail Transport*, by Sir Ralph L. Wedgwood. 162 pages. 8½ in. by 5½ in. Bound in paper. Published by Oxford University Press, Amen House, E. C. 4, London, England. Price 10 shillings, 9 pence (approximately \$2.25).

As the American railroad men who are administering the network in the American occupation zones of Germany and Austria, respectively, are finding to their consternation, railroad transportation in Europe is a "fearful and wonderful thing." Entirely aside from the destruction created by the war, and the relative isolation of certain portions of the European continent, carrier managements in Europe face the inevitable handicaps of a relatively small area divided up into numerous independent sovereignties, each of which owns its own railroads, and guards its commerce and fosters its own ports jealously.

As one American railroader put it: "The troubles of these people begin where ours leave off." In short, a European railroad executive must not only solve all the problems which an American railroader must lick—but he must then go on to overcome such obstacles as unstable currencies, transit through unfriendly countries, border arrangements, rates to serve political ends or to foster home ports, and division of responsibility for loss and damage.

Sir Ralph Wedgwood has turned out a handy volume which is likely to answer any question that an American might have about international relations among the railroads of continental Europe. There has arisen a bewildering host of associations, conventions, bureaus, and laws—the titles of many of which are misleading—into which the American student of transportation may not venture without a guide. This book furnishes that guide.

Since this study was prepared in the summer of 1945, it does not reflect any of the work which has been done since the close of hostilities, and is, in general, a picture of international railroad organization at the beginning of World War II. It is as well a short history of the developments of the organizations described.

# GENERAL NEWS

## January Net Income Totalled \$29,000,000

Net railway operating income  
for the same month was  
\$57,732,041

Class I railroads in January had an estimated net income of \$29,000,000, after interest and rentals, as compared with \$33,887,227 in the corresponding period of 1946, according to the Bureau of Railway Economics of the Association of American Railroads. The net railway operating income for January, before interest and rentals, was \$57,732,041, as compared with \$66,681,905 in the same period last year.

Gross during January totaled \$685,534,027, as compared with \$640,840,668, an increase of 7 per cent. Operating expenses in the same month amounted to \$538,948,218, compared to January, 1946's \$495,885,440, an increase of 8.7 per cent. In the 12 months ended with January 31, the rate of return averaged 2.68 per cent, as compared with 3.72 per cent for the 12 months ended with January 31, 1946.

Thirty-nine Class I roads failed to earn interest and rentals in January, of which 18 were in the Eastern district, five in the Southern region, and 16 in the Western district.

Class I roads in the Eastern district in January had an estimated net income of \$8,600,000, compared with \$10,589,227 in the same month of 1946. Their January net railway operating income was \$22,467,888, compared with \$19,926,295 in the same 1946 month.

Gross in the Eastern district in January totaled \$316,255,400, an increase of 12.6 per cent compared with January, 1946, while operating expenses totaled \$254,353,797, an increase of 9.5 per cent above 1946.

In the South—Class I roads in the Southern region in January had an estimated net income of \$6,400,000, compared with \$6,055,765 in the same period of 1946. Their January net railway operating income was \$9,956,588, compared with \$11,053,202 in the same month in 1946.

Gross in the Southern region in January totaled \$99,723,744, an increase of 10.8 per cent compared with the same period of 1946, while operating expenses totaled \$77,253,414, an increase of 13.8 per cent above 1946.

## "Railway Progress" Appears

The Federation for Railway Progress currently is distributing to its members the first (March) issue of its new monthly magazine, "Railway Progress." Its 12 pages, embellished with graphs and sketches, include an article by Wendell Berge (recently resigned assistant attorney-general in charge of the anti-trust division), one by David B. Robertson, president of the Brotherhood of Locomotive Firemen & Enginemen, and one entitled "The Facts About the Railroads' Obsolete Passenger Equipment."

The article by Mr. Robertson is based on his recent address to the Central Railway Club of Buffalo, N. Y., on labor-management relations (see *Railway Age* of December 28, 1946, page 1089), while that by Mr. Berge discusses from his point of view the Reed and Bulwinkle bills to exempt approved railroad joint action on rates and service from anti-trust law prosecution, emphasizing his contention that their effect would be legalization of the power of a monopoly group. "Legislation of this type," Mr. Berge asserts, "tolls the bell for the passing of free enterprise in the entire economy."

One page in the new magazine is a tabulation showing "what has happened" to 14 railroads in reorganization proceedings. It announces that a series of articles will be published to explain present procedures and to analyze legislation proposed to "reform" them.

Class I roads in the Western district in January had an estimated net income of \$14,000,000 compared with \$17,242,235 in the same period of 1946. Their January net railway operating income was \$25,307,565, compared with \$35,702,408 in the same month of 1946.

Gross in the Western district in January totaled \$269,554,883, a decrease of 0.1 per cent compared with January, 1946, while operating expenses totaled \$207,341,007, an increase of 5.9 per cent above 1946.

## CLASS I RAILROADS—UNITED STATES

Month of January

	1947	1946
Total operating revenues	\$685,534,027	\$640,840,668
Total operating expenses	538,948,218	495,885,440
Operating ratio—per cent	78.62	77.38
Taxes	25,983,554	67,593,598
Net Railway operating income (before charges)	57,732,041	66,681,905
Net income, after charges (estimated)	29,000,000	33,887,227

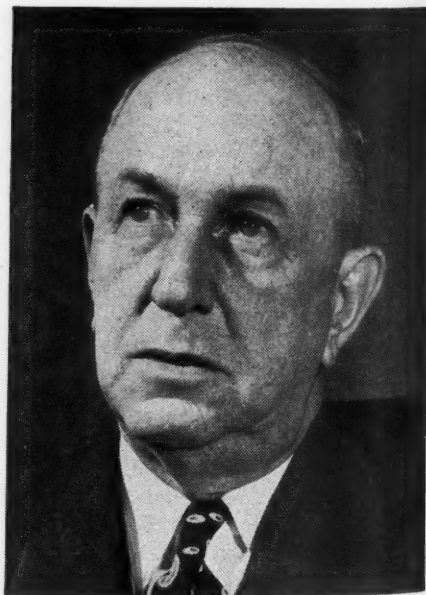
## J. H. Aydelott Named A. A. R. Vice-President

Burlington officer, formerly  
with O. D. T., succeeds  
Clark Hungerford

James H. Aydelott, general manager, lines East, of the Chicago, Burlington & Quincy and former director of the Office of Defense Transportation's Railway Transport Department, has been elected vice-president of the Association of American Railroads in charge of the Operations and Maintenance Department. Mr. Aydelott, who assumed his new duties on March 1, succeeds Clark Hungerford, who resigned on January 1 to become president of the St. Louis-San Francisco.

Mr. Aydelott, whose entire railroad career extending over a period of 45 years has been with the Burlington and its subsidiaries, served two tours of duty with O. D. T., joining its staff first during the late Joseph B. Eastman's term as director and returning later to become director of the Railway Transport Department under Colonel J. Monroe Johnson.

The new A. A. R. vice-president was born in Jersey county, Ill., August 13, 1883. After completing courses in public schools and business college he entered the service of the Burlington in 1902 as a stenographer and clerk at Brookfield, Mo. His first promotion came the following year when he became timekeeper and accountant at Brookfield. From 1908 until 1911, he was



J. H. Aydelott

Railway Age—March 8, 1947

chief clerk in the division superintendent's office at St. Joseph, Mo., after which he was for about a year chief clerk in the office of the general superintendent at St. Louis, Mo. From 1912 until 1916, Mr. Aydelott held a similar position in the office of the assistant general manager at Chicago.

In 1916 he was appointed trainmaster at La Crosse, Wis., and the following year he became superintendent at Hannibal, Mo., remaining in that position there and at Omaha, Neb., and Casper, Wyo., until 1920, when he was promoted to superintendent of transportation with headquarters at Chicago. From 1922 until 1930, Mr. Aydelott was general superintendent of the Burlington's Illinois district with headquarters at Galesburg, Ill., and in the latter year he was transferred to Fort Worth, Tex., where he held the position of general manager of two Burlington subsidiaries, the Fort Worth & Denver City and the Wichita Valley.

In 1931 he became general manager of the Burlington's lines West, with headquarters at Omaha, Neb., and, except for his periods of service with O. D. T., he has been general manager, lines East, with headquarters at Chicago since July 1, 1936.

Mr. Aydelott's first service with O. D. T. began in July, 1943, when he became associate director of the former Division of Railway Transport. He remained in that position for about a year, serving part of the time as acting director of the division. His second tour of duty with the government agency was during the 1945 period from February through June when he served as director of the Railway Transport Department.

### C. & E. I. Sues Driver of Car in Crossing Accident

A suit for \$25,000 damages was filed in circuit court at Danville, Ill., last week by the Chicago & Eastern Illinois against the driver of an automobile which collided with one of the road's Chicago-Florida trains at an Alvin (Ill.) crossing on January 14. The suit alleges that the driver "negligently and carelessly operated the motor vehicle so as to cause it to collide with the train." The C. & E. I. charges that the accident caused extensive damage to the locomotive, train and roadbed. The train was delayed two hours waiting for an engine replacement. Two passengers riding in the automobile were killed.

### Santa Fe Renews Courier Nurse Service on Two Trains

Courier nurse service for the benefit of mothers traveling with babies, for children traveling alone and for the ill, invalid and aged, has been reestablished by the Atchison, Topeka & Santa Fe on two of its Chicago-Los Angeles (Cal.), trains—the "Scout" and "El Capitan." The service, first inaugurated by the road in 1937, was discontinued in 1942, due to the war.

T. B. Gallaher, general passenger traffic manager of the Santa Fe, said that a staff of 26 registered nurses, most of whom are World War II veterans of the Army and Navy nurse corps, has been recruited for the service. The group is

completing a training program organized by the road, which consists of a study of train schedules and railroad routine, a course in a "charm school" at Chicago, and an educational tour of the line to acquaint them with its major travel attractions and train service.

### Freight Car Loadings

Loadings of revenue freight for the week ended March 1 totaled 850,031 cars, the Association of American Railroads announced on March 6. This was an increase of 73,342 cars, or 9.4 per cent, above the previous week which included the Washington's birthday holiday, an increase of 67,634 cars, or 8.6 per cent, above the corresponding week last year, and an increase of 64,295 cars, or 8.2 per cent, above the comparable 1945 week.

Loading of revenue freight for the week ended February 22 totaled 776,689 cars, and the summary for that week as compiled by the Car Service Division, A. A. R., follows:

Revenue Freight Car Loading			
For the Week Ending Saturday, February 22			
District	1947	1946	1945
Eastern .....	154,179	135,934	152,557
Allegheny .....	165,749	136,617	170,080
Pocahontas .....	58,901	58,117	57,000
Southern .....	130,411	134,591	127,534
Northwestern .....	83,439	80,243	78,617
Central Western .....	125,253	118,115	118,876
Southwestern .....	58,757	59,664	67,732
Total Western Districts .....	267,449	258,022	265,225
Total All Roads .....	776,689	723,281	772,396
Commodities:			
Grain and grain products .....	49,050	51,720	40,465
Livestock .....	12,299	17,242	12,892
Coal .....	182,420	184,186	170,354
Coke .....	14,203	8,852	15,479
Forest products .....	46,256	37,650	37,466
Ore .....	12,636	7,288	12,191
Merchandise l.c.l. .....	110,146	113,883	101,633
Miscellaneous .....	349,679	302,460	381,916
February 22 .....	776,689	723,281	772,396
February 15 .....	799,977	707,054	784,703
February 8 .....	767,481	713,240	755,832
February 1 .....	835,051	723,301	739,556
January 25 .....	821,964	708,554	759,625

Cumulative total,  
8 weeks .....

In Canada.—Car loadings for the week ended February 22 totaled 68,486 cars, as compared to 65,909 cars for the previous week and 65,538 cars for the corresponding week last year, according to the compilation of the Dominion Bureau of Statistics.

	Revenue Cars Loaded	Total Cars Rec'd from Connections
Totals for Canada:		
February 22, 1947 .....	68,486	37,113
February 23, 1947 .....	65,538	35,627

Cumulative totals for  
Canada:

February 22, 1947 .....	533,668	285,950
February 23, 1947 .....	516,631	271,646

### Rear Car of Fast Train Breaks Loose on Mountain

The last car of the Pennsylvania's 13-car "Sunshine Special," westbound on the Philadelphia-Pittsburgh main line, became separated from the standing train at the top of a grade in the Allegheny mountains, near Gallitzin, Pa., at 3:54 a.m. on February 28. The car rolled eastward downhill about 3½ miles before one truck was derailed, throwing one end into an embank-

ment and killing a porter and injuring 10 of the 12 passengers and the brakeman. The car, an all-room sleeper, the "Cascade Mirage," en route from New York to Houston, Tex., became uncoupled while one of the train's two locomotives was being cut off at the mountain top. The derailment occurred on a 9.15 degree curve approximately 5 minutes after the car had broken loose.

Brake inspections, according to a spokesman for the railroad, had been made at New York, Harrisburg, Pa., and Altoona. The average gradient from the point where the car broke loose to the derailment point—which is about 1¼ miles east of the so-called Bennington curve where the "Red Arrow" was derailed on February 18—is 1.73 per cent. The main portion of the train proceeded on its way a short time after the separation was observed, and an eastbound passenger train rendered assistance to the victims of the accident.

### New R. & L. H. S. Unit Formed

The 25-year-old Railway & Locomotive Historical Society on February 24 issued a charter to its newly-formed Northern Indiana chapter. A. L. H. Darragh, of South Bend, is acting chairman. The group held its first meeting on March 4 in the New York Central-Grand Trunk Western station at South Bend, at which time the Central's motion picture "The Steam Locomotive" was featured.

### C. G. W. Joins Credit Plan

The Chicago Great Western is the latest road to associate itself with the travel-credit plan of the Rail Travel Credit Agency at Chicago, making a total of 45 roads which have indicated that they will participate in the plan when it becomes effective on April 1. The names of other roads joining the plan were published in the *Railway Age* of February 22, page 418, and March 1, page 467.

### Crosser Act Objectors Elect Officers; Choose Name

"Rank and file" employees of 32 railroads, meeting for the second time in Chicago on March 4 in protest against the Crosser amendments to the Railroad Retirement Act, elected officers, selected a name for their group and appointed a steering committee to frame legislative proposals aimed at the repeal of the amendments.

The organization was named the Railroad Employees' Pension Protective Committee of Chicago, and Thomas Stack, an employee of the Chicago, Rock Island & Pacific, was elected its chairman. Mr. Stack said the committee was strongly in favor of the bill, H. R. 2169, which was introduced in the House of Representatives by Representative Gillette, Republican of Pennsylvania, proposing the repeal of the Crosser Act. (Introduction of this bill was reported in last week's *Railway Age*, page 470).

The newly formed committee indicated it would ask Congress to "define the duties of the Railroad Retirement Board and to hold such duties to that of an administra-

tive nature." That and other proposals were scheduled to be drafted by the organization's steering body at a meeting on March 6, and will be presented to the committee on March 11 for approval. The committee at its meeting also voted to send its sympathy and condolence to Lodge No. 1270 of the Brotherhood of Railway Clerks (C. & N. W.), at Proviso yard, Chicago, which the committee asserted was going "to lose its charter in May because of its anti-Crosser activities."

Other officers of the new group are: Vice-chairman, A. R. Marino, Grand Trunk Western; secretary, John Marinchek, Alton; assistant secretary, L. J. Berger, Baltimore & Ohio; and treasurer, Walter A. Schrader, Illinois Central.

### N. & W. Hotel Announces Opening of Two New Wings

The Hotel Roanoke, at Roanoke, Va., owned and operated by the Norfolk & Western and located between the Shenandoah and the Great Smoky Mountains National Parks, has announced the opening of a completely modernized and refurnished 65-room wing on March 1 and a new 125-room wing on April 1. Completion of the \$1,500,000 project, the announcement said, will give the hotel a total of 365 guest rooms.

### Duties of C. & O. Passenger Representatives Outlined

The Chesapeake & Ohio now has 32 passenger representatives assigned to handle the mechanics of that road's pay-as-you-go and charge-it-as-you-go plans for the sale of tickets, Pullman space and other services on its trains, that company has announced. All of these men have been selected from the ranks of C. & O. employees on the basis of courteous manner and neat appearance, it was explained. They are uniformed in blue with gold identification markings.

Prior to a train's departure, the passenger representative checks with city ticket

offices, picks up the diagram for reserved seat coaches and the tickets for "pay-on-train" passengers, then directs the seating of travelers having reservations. If some space on reserved coaches has not been sold, the representative asks passengers who have not previously arranged for space whether they desire seats in the reserved coaches.

It is the representative's duty to locate the persons for whom he holds pay-on-train tickets and deliver them. He either collects cash for these tickets or charges the amount if the traveler presents a credit card. At principal operating points, representatives check at ticket offices for further reservations and wire ahead to determine whether any space has been released. In this way, they know at all times which space has been reserved and the space available as the run progresses.

All passenger representatives have been trained to consider the personal problems of travelers in the manner of seating them. For instance, a mother traveling with one or two young children will be seated, whenever possible, so the children face her and she can watch them while they sleep. Representatives are charged with seeing that porters keep coaches and toilet facilities clean, and at the end of trips they supervise the unloading of passengers and luggage. At the journey's end, representatives summon red caps for travelers and see that passengers are given directions if they are continuing their trips on different lines.

To avoid awakening coach passengers at night to show their tickets each time a new conductor takes over the train, seat checks of various colors are provided to show the destination and whether the fare was paid in cash or charged, and the ticket is lifted at the beginning of the journey.

### T. & P. to Aid Economic Study

The Texas & Pacific and the West Texas Chamber of Commerce will jointly sponsor an economic survey project to determine measures for further developing

the area west of Fort Worth, Tex., lying along and tributary to the road, W. G. Vollmer, president of the T. & P., announced last week. Mr. Vollmer said that the road intends to determine the causes and seek the removal of any "artificial conditions, including freight rates, retarding the normal and expected development" of the area.

### Coal Smoke Abatement Group

A special subcommittee on railroads has been set up by the Coal Producers Committee for Smoke Abatement, consisting of J. D. Clark, chief fuel supervisor of the Chesapeake & Ohio, chairman; J. S. Swann, fuel conservation engineer of the Louisville & Nashville; A. A. Raymond, superintendent, fuel and locomotive performance of the New York Central; and Walter Lloyd, assistant engineer in charge of coal inspection of the Pennsylvania. This subcommittee will work directly with the railroads in promoting and solving the abatement of smoke, it was stated.

### Baldwin to Give Two Lectures at Wharton School

Herbert L. Baldwin, publicity manager of the Boston & Maine and the Maine Central, will give two lectures on transportation advertising and publicity to the junior and senior transportation classes of the University of Pennsylvania's Wharton School of Finance and Commerce in Philadelphia, Pa., on March 18.

### New M. of W. Brotherhood President Chosen

The grand lodge officers and general chairmen of the Brotherhood of Maintenance of Way Employees have promoted T. C. Carroll, vice-president for the Southeastern region, to the presidency of the union to succeed the late Elmer E. Millman. Mr. Carroll was born at Donalds, S. C., May 22, 1894, and entered railroad service as a clerk on the Seaboard Air Line. He subsequently was a brakeman and conductor before entering maintenance of way work on the Louisville & Nashville. His emergence as a brotherhood leader was marked by his election in 1919 as general chairman of maintenance of way employees of that road.

### Lorenz Medal Awarded to Sauer

J. A. Sauer, president of the Symington-Gould Corporation, has been awarded the Frederick A. Lorenz Memorial Medal for 1946 for the most outstanding contribution to the general welfare of the steel castings industry during the preceding year. The medal was presented to Mr. Sauer at the annual meeting of the Steel Founders' Society of America, held this year in Chicago.

Mr. Sauer was born in Baltimore, Md., on May 11, 1888. After being graduated from high school, he worked as a messenger and machinist's apprentice in the Mt. Clare shops of the Baltimore & Ohio, in Baltimore, from June, 1905, to September, 1907, when he joined the T. H. Symington



The New York Central's first post-war combination passenger-baggage car was delivered on February 21 by the American Car and Foundry Company. Twenty cars of this type were ordered. The car has polished aluminum sheathing; the interior is trimmed in aluminum and stainless steel; and the air-conditioned passenger end seats 48 people. The opposite end is a 29-ft. 1-in. baggage compartment which has an overhead unit type heater and an outside ventilator

...lying  
W. G.  
P., an-  
aid that  
causes  
artificial  
retard-  
ment"

## Group

ads has  
s Com-  
isting of  
of the  
Swann,  
ouisville  
erinten-  
ance of  
Lloyd,  
inspec-  
subcom-  
ne rail-  
ng the  
l.

## tures

anager  
Maine  
a trans-  
to the  
asses of  
Wharton  
n Phila-

## od

general  
Mainten-  
noted T.  
South-  
of the  
Hillman.  
S. C.,  
service  
ne. He  
nd con-  
of way  
le. His  
der was  
general  
employees

## Sauer

ymington-  
ded the  
edal for  
tribution  
castings  
ar. The  
r at the  
ers' So-  
Chicago.  
re, Md.,  
raduated  
messen-  
the Mt.  
Ohio, in  
ptember,  
ymington

8, 1947



Railroad officers helping celebrate the 100th anniversary of the Monon are, left to right: J. L. McKee, vice-president, New York Central; Charles E. Johnston, chairman, Western Association of Railway Executives; M. F. Stokes, president, Chicago & Western Indiana; S. A. Dobbs, vice-president, Gulf, Mobile & Ohio-Alton; Paul Feucht, vice-president, Pennsylvania; C. W. Ashby, president, Kentucky & Indiana Terminal; Fred G. Gurley, president, Santa Fe; H. W. Burtress, president, Chicago Great Western; R. B. White, president, Baltimore & Ohio; Ralph Budd, president, Burlington; Wayne A. Johnston, president, Illinois Central; J. D. Farrington, chief executive officer, Rock Island.

## Indiana Society Celebrates Monon Centennial

The Indiana Society of Chicago, at its annual dinner of February 22, celebrated the 100th anniversary of the Monon railroad of which George Ade said: "The Monon is 'catty-cornered' to the whole State of Indiana, and all its trains are 'Hoosiers'."

John W. Barriger, president of the Monon, was guest of honor. The theme song was "Up and Down the Monon." A miniature Monon railroad carried passengers around the Grand Ballroom of the Stevens Hotel in which the dinner was held. Its passengers on one trip included a dozen officers of other railways, who appear in the photograph herewith. Most of the crowd wore Monon locomotive engineer caps.

The program included two cartoons by John T. McCutcheon and one by the late Gaar Williams, both Hoosier-born. F. Harold Van Orman, former lieutenant governor of Indiana, was conductor of the train, and Mark A. Brown, president of the Indiana Society, was its locomotive engineer. The program was a Monon Route folder having a map in the middle of it showing the Monon dominating the country with the Santa Fe as a branch of it.

The theme song "Up and Down the Monon," written by John A. McGee, follows:

Out Kansas and Missouri way  
They brag about the Santa Fe;  
The New York Central, B. & O.,  
Those are the toast of O-hi-o;  
Kentucky's got the L. & N.

And Pennsylvania's got the Penn.;  
In Michigan it's the Pere Marquette,  
But we've got the best darned railroad  
yet . . . OH,

UP and down the Monon,  
Everything is fine,  
'cause that rootin', tootin' Monon  
She's a Hoosier line, OH . . .  
UP and down the Monon  
Everything is fine,  
'cause that rootin', tootin' Monon  
She's a Hoosier line.  
All aboard! All aboard!  
It's my Indiana home that I'm a headin'  
toward, OH . . .  
UP and down the Monon  
Everything is fine,  
'cause that rootin', tootin' Monon  
She's a Hoosier line!

Company's Baltimore office as an office boy and assistant file clerk. Transferred to the New York office in 1912, Mr. Sauer studied evenings at the New York University School of Commerce and was graduated with the class of 1917. In July of that year he transferred to Rochester, N. Y., as secretary of the Symington-Anderson Company, one of five war plants in Rochester and Chicago which were organized by T. H. Symington. Late in 1919, Mr. Sauer returned to New York as assistant to the

vice-president of the T. H. Symington Company, and he was appointed assistant to the president in 1922. In 1924 he was elected vice-president of the Symington Company, successor to the T. H. Symington Company. He was simultaneously vice-president of the Gould Coupler Company, which had been absorbed by Symington in 1925. When the two companies were merged in 1936, Mr. Sauer was appointed executive vice-president. He was elected president in May, 1944.

## Army Needs Engineering Men

Civil service positions paying \$4,100 to \$8,100 per year are open for qualified persons who have had experience in railroad engineering, including design of steam locomotives, internal combustion engines and locomotives, and passenger and freight cars, according to the railroad branch, Transportation Corps Board, Brooklyn, N. Y. Projects underway include the design, development, and testing of new

types and improved methods of military railway transportation. Information is available at the civilian personnel branch of the recruitment and placement section at the New York Port of Embarkation, First ave. and 58th st. Brooklyn.

### C. P. R. Clears Snow from 3,000 Miles of Track in One Week

Snowstorms, said to be the worst in the history of Western Canada, which raged for three weeks during late January and the early part of February, blocked 3,000 mi. of Canadian Pacific trackage, and at some points produced drifts up to telegraph-pole height. Despite conditions never before encountered on the C. P. R. lines—which for the first time in history blocked its main line between Moose Jaw, Sask., and Regina—the road completed clearing the tracks one week after the storms ceased.

Snowplows and bulldozers were employed 24 hr. daily against the 20-ft. drifts, packed hard by the force of high winds. Of the total trackage cleared, 2,000 mi. are in Saskatchewan and 1,000 mi. in Manitoba. The last sections opened were in southern Saskatchewan, where the storms died out on February 8.

From February 7 to 9 approximately 2,000 free meals were served in the road's dining cars and restaurants to stranded passengers. Two C. P. R. airplanes ran in shuttle service from Regina to Calgary, Alta., during the height of the storm, carrying passengers marooned on a train for nearly four days. Smaller ski-equipped aircraft flew engine crews and operating men to isolated branch lines and country towns where they repaired and restreamed equipment in preparation for its removal when the lines were cleared.

### New B. & O. Service to Check Progress of Cars

An innovation in the handling of carload fast freight to insure dependable siding-to-siding service has been introduced by the Baltimore & Ohio, according to an announcement by Roy B. White, president. The new service will be known as "Sentinel Service," because it will be constantly supervised by a "sentinel" who will be in direct touch with all fast freight in transit

by means of direct company-owned teletype lines. Shippers will be told the time their "Sentinel Service" shipments will take from their sidings to the sidings of the consignees rather than, as heretofore, the scheduled time of trains operating between terminals, it was explained.

"Sentinel Service" will be available at regular tariff rates for all types of carload freight except certain bulk commodities. It is immediately effective for 28 of the principal cities located on the B. & O., on the Central States Dispatch Route to and from the northeastern states and New England, and at Potomac yard, Va. As rapidly as communications facilities can be expanded and new schedules can be established, it is expected that other cities along the B. & O. will be added to the service.

### Railroads Begin New Program of Newspaper Advertisements

A newspaper advertising program to carry the railroad story "down to the grassroots of the country," as one spokesman put it, has been authorized jointly by the Eastern Railroad Presidents Conference, the Southeastern Presidents Conference and the Western Association of Railway Executives. The first advertisement, concerning the reasons for freight rate increases, is scheduled to appear on March 11.

Space in daily and weekly newspapers throughout the country will be used as a "forum," in which the railroad groups will discuss transportation problems that have a direct bearing on the welfare of both the public and the railroads. An inter-regional advertising committee of approximately 20 members will meet upon call by its chairman for the purpose of formulating and discussing forthcoming advertisements. Also present at these meetings will be representatives of McCann-Erickson, Inc., the advertising agency which has been selected to prepare and place the "copy."

It was pointed out that advertisements in this exclusively newspaper program will deal with timely problems, an endeavor seriously hampered in magazine advertising because of the months of advance planning necessary. It is estimated that an advertisement can be placed before the

public via newspapers within 48 hr. to one week after its theme has been determined by the inter-regional committee.

The program, it was stated, will be independent of the advertising of the Association of American Railroads which appears in the national magazines and farm papers. The number of advertisements to be published, the schedule of their appearance and the subject matter will be flexible.

### Canada Sets Up a Bureau of Transport Economics

A new organization, the Bureau of Transport Economics, has been established in Canada, under the Board of Transport Commissioners, to take over the functions of that body's economics staff, those of the equivalent section of the Air Transport Board, and, of the air development branch of the Department of Reconstruction, it has been announced. Jean Claude Lessard, economist of the transport board, has been appointed director of the bureau, charged with the responsibility for making special studies in that field and for providing data with respect to all forms of transportation. Mr. Lessard was attached to the bureau of economics of the Canadian National for 10 years before joining the staff of the transport board in 1939.

### Shippers Board Meetings

The Great Lakes Regional Advisory Board will hold its annual meeting and election of officers on March 25 and 26 at the Hotel Statler in Buffalo, N. Y. Jacob Aronson, vice-president and general counsel of the New York Central, will be the featured speaker.

The Trans-Missouri-Kansas Shippers Board will hold its 25th annual and 75th regular meeting on March 12, at the Hotel DeSoto in St. Louis, Mo. -Elmer A. Smith, senior general attorney of the Illinois Central, will speak at the luncheon session on the subject, "The Common Interests of Shippers and Railroads."

### C. & N. W. Produces Rhythm of Rail Lengths on Radio

This past week Middle-Westerners tuning in on the Chicago & North Western's daily morning broadcast of classical recordings have heard from the revolving disks the sound made by the wheels of a fast train (presumably at the rear end) as it passes over 39-ft., 79-ft. and continuous welded rail, respectively. In connection with the recording, the master of ceremonies explained that the railroad is installing both the extra-long, 79-ft. sections and continuous welded rail at various locations on its road, and pointed out that a smoother ride is obtained thereby.

### A. A. R. Board Meeting

Directors of the Association of American Railroads, meeting in Washington, D. C., February 28, discussed the freight-car situation, including proposals to change the present per diem rate of \$1.15. A. A. R. President R. V. Fletcher said after the meeting. He added that a decision with respect to the per diem matter had been deferred pending further study.



Meanwhile, Judge Fletcher expressed his confidence that the railroads' 1947 orders for freight cars would reach the 125,000 figure discussed at the car-shortage conference held last week under the sponsorship of Senator Reed, Republican of Kansas (see *Railway Age* of March 1, page 470). In this connection, the A. A. R. president emphasized again that the 125,000 would include the 82,600 cars already on order.

**More Technical Research**—Judge Fletcher also revealed that the board of directors had approved appropriations for additional research work on brake beams and refrigerator cars. The brake-beam study will be a project undertaken jointly by the A. A. R. and brake beam manufacturers in an effort to improve the design and performance of the beams. Seven new designs will be tested, with the laboratory work done at the American Steel Foundries Company plant at Granite City, Ill., and the field tests made by railroads on four types of cars—box, refrigerator, hopper and tank.

The reefer research project is a continuation of that on which the A. A. R. has been cooperating with the refrigerator car lines, the United Fresh Fruit & Vegetable Association, the Department of Agriculture and the Bureau of Standards. The A. A. R. voted to increase its 1947 appropriation for this project by \$60,000—from \$50,000 to \$110,000. Much of the additional amount will be used for the development of specialized instruments for the tests of insulation in reefers under all road conditions.

Judge Fletcher said that recommendations which he has prepared as to the research program which the A. A. R. should adopt as its follow-through from the work of the Railroad Committee for the Study of Transportation were not before the board at the meeting. He explained that he has withheld submission of the recommendations because he wished to obtain the views of the new A. A. R. vice-president, J. H. Aydelott, whose election to that position was announced the day of the board meeting. Much of the recommended program, Judge Fletcher pointed out, would relate to matters of interest to the Operations and Maintenance Department which Mr. Aydelott heads.

**Cooperation With Brotherhoods**—Asked about a conference the executives on hand for the board meeting had had the previous day with members of the Railway Labor Executives Association and A. F. Whitney, president of the Brotherhood of Railway Trainmen, and Alvanley Johnston, grand chief engineer of the Brotherhood of Locomotive Engineers, Judge Fletcher replied that the labor leaders and railroad officers had agreed that they ought to cooperate wherever they can.

It was recognized, he added, that controversial matters will arise, but "we agreed to reduce the area of disagreement to as small a compass as possible." Discussion of wages and working conditions would have had no place in a meeting of that kind, the A. A. R. president said in response to a question as to whether such matters had come up.

T. C. Cashen, chairman of the R. L. E. A., had previously described the labor-management conference as an "harmonious meeting." Mr. Cashen went on to express his view that cooperation should solve many problems, thus eliminating any necessity for going to Congress for legislation. Earlier in the week, R. L. E. A. had met with Robert R. Young, chairman of the Chesapeake & Ohio and Alleghany Corporation, who appealed for labor participation in the Federation for Railway Progress which he is sponsoring.

### Will Hear Argument April 2 in Pullman Acquisition Case

The Interstate Commerce Commission will hear oral argument April 2 on the recently-issued proposed report wherein Examiners Howard Hosmer and O. G. Barber have recommended commission approval of pooling arrangements involved in transactions whereby the so-called "buying group" of 56 railroads propose to acquire the Pullman Company's sleeping-car business. The Hosmer-Barber report was noted in the *Railway Age* of February 8, page 330.

### Longstreth Medal Awarded to Samuel Berman

The Longstreth Medal, annual award of the Franklin Institute for inventions of high order, will be presented to Samuel Berman, research engineer of the Waugh Laboratories division of the Waugh Equipment Company, on April 16. Mr. Berman will receive the medal "in consideration of the development of a metal locator for use in surgery which has greatly facilitated the location and removal of foreign metallic bodies embedded in the tissues." This device, the Berman metal locator, was extensively used by Army and Navy hospitals during the war.

The metal locator basically consists of an induction balance type locating probe operating in conjunction with a detecting unit. The approach of the probe to a metallic foreign body in the tissues is



Samuel Berman

indicated by a dial and the hum of a loud-speaker. Especially effective in eye work, the detecting probe used is suitable for large and small foreign bodies. Magnetic and non-magnetic metallic bodies can be located and the depth at which they can be found is determined by their mass and their electrical and magnetic properties.

### Club Meetings

The Car Foremen's Association of Omaha (Neb.), will meet on March 13 at the Railroad Y. M. C. A. building, Council Bluffs, Iowa, at 6.30 p.m. There will be a discussion of A. A. R. rules.

A meeting of the Eastern Car Foremen's Association will be held at the Engineering Societies Building, New York, at 8 p. m., March 14. A paper on "Long Travel Springs and Controlled Oscillation on Freight Trucks" will be presented by J. M. Hall, vice-president of Cardwell Westinghouse Company.

A meeting of the Western Railway Club will be held at the Hotel Sherman, Chicago, on March 17 at 6 p.m. The speaker of the evening will be Judge Wilson McCarthy, trustee of the Denver & Rio Grande Western.

The Railway Business Woman's Association of Chicago will hold a dinner meeting at 6 p. m. on March 18, at the Illinois Club for Catholic Women, 820 North Michigan avenue. Mrs. W. Glenn Suthers will address the meeting on "Current Events."

The seventeenth annual safety convention and exposition, sponsored by the Greater N. Y. Safety Council, has been scheduled for March 25-28, inclusive, at the Hotel Pennsylvania, New York.

The annual meeting of the National Association of Corrosion Engineers will be held at the Palmer House, Chicago, on April 7, 8, 9 and 10.

The Second Southern Machinery and Metals Exposition will be held April 14-17, inclusive at Atlanta, Ga., at the Municipal Auditorium.

Henry R. Fegley, assistant to general manager of the Western Pacific, at San Francisco, has been elected president of the Pacific Railway Club, and will be installed into that position at the club's thirtieth anniversary banquet on March 13, in the Gold ballroom of the Palace hotel in San Francisco. Other officers to be installed at that time are as follows: First vice-president, Roland D. Pierson, regional engineer of the Atchison, Topeka & Santa Fe, at Los Angeles, Cal; second vice-president, Herbert I. Benjamin, vice-chairman of the system insurance committee of the Southern Pacific, at San Francisco; third vice-president, George B. Hanson, passenger traffic manager of the Southern Pacific, at Los Angeles; and treasurer, Verner W. Smith, division superintendent of the Union Pacific, at Los Angeles. William S. Wollner, secretary of the club during the entire 30 years of its existence, will continue in that position.

A list of current publications appears on page 525.

# With the Government Agencies

## Asks I. C. C. to Order Rail-Water Rate Parley

Maritime Commission seeking compromise in competitive rate controversy

The United States Maritime Commission, acting after receiving advice from the Department of Justice, has asked the Interstate Commerce Commission to order the respondent rail and water carriers to "undertake negotiations" with respect to the settlement of the issues involved in the Docket Nos. 29663 and 29664 proceedings, relating to the I. C. C.'s investigation of transcontinental rail rates and intercoastal water rates, respectively.

Meanwhile, the M. C., whose authority to operate as a water carrier on domestic intercoastal and coastwise routes was extended from March 1 to July 1 by the I. C. C. on February 27, has announced that it will abandon government coastwise cargo vessel services in the Atlantic-Gulf trades because "low competitive rail freight rates and mounting labor costs have made operation unfeasible."

In its motion seeking an I. C. C. order requiring negotiations, the M. C. stressed its contention that there is need for "prompt determination" of the problems involved in the two proceedings in view of the extension granted it to operate steamship services in the domestic trades until July 1. It said that action was taken in order that the M. C. "might accomplish complete withdrawal from governmental operation of steamship services in an orderly manner."

**Must Discontinue**—"In the face of a clear legislative mandate for discontinuance of governmental operation, the need for the readjustment of rates, which is the objective sought in these proceedings in order that private ownership may resume, becomes critically urgent," the motion said. "It also becomes the immediate responsibility of all parties concerned to resolve as promptly as possible the matters at issue in these proceedings, by their mutual agreement, to the extent that such issues may be composed without prejudice to the interests of any parties concerned."

The motion, according to the M. C., was based on a reply from Attorney General Clark to a letter from Vice-Admiral Smith, chairman of the M. C., in which the latter sought the views of the Department of Justice as to the "applicability of the anti-trust laws" with respect to these proceedings.

**Not a "Conspiracy"**—In his reply, which noted that Vice-Admiral Smith asked for his views "predicated on the particular circumstances of this case," the Attorney General said that it is the Justice

Department's opinion that the activities of the common carriers carried on through concerted action among them by means of rate bureaus, or otherwise, by which their rates are fixed, "constitutes a violation of the anti-trust laws, subject only to the limitation that so much of such activities as is within the permissible area of collaboration is not violative by those laws."

"The amount by which such rates are raised or lowered by such concerted action is not important or relevant in the consideration of the question as to whether such laws have been violated," Mr. Clark said in part. "The delineation of the permissible area of collaboration should come out of the decisions in one or both of the Georgia and Western cases. Pending delineation of such permissible areas in these cases, the Department of Justice has taken the position that activities and collaboration of carriers pursuant to and in obedience to direct orders of the commission are not violative of the anti-trust laws."

"Therefore," Mr. Clark continued, "it is felt that if the commission enters an order or otherwise directs that negotiations be initiated and carried on between respondent rail and water carriers; and, out of such negotiations, to prepare rate proposals in accordance with criteria expressly prescribed by the commission, an d to submit such proposals to the commission, such order or direction being for the purpose of adjusting the rates contemplated by Ex Parte 164 . . . and for the purpose of maintaining a domestic merchant marine competing in full vigor with rail carriers as a necessary auxiliary to the nation's defense and domestic economy—then, under such circumstances, the action of such collaborating carriers, in obedience to such order or direction would indicate no violation of the anti-trust laws."

**I. C. C. Must Order Action**—With reference to the Justice Department's decision in regard to instituting additional anti-trust cases based upon the same issues presented in the Georgia and Lincoln, Neb., cases, Mr. Clark invited Vice-Admiral Smith's attention to a letter written November 25, 1946, by Wendell Berge, assistant attorney general, to Director John R. Steelman, of the Office of War Mobilization and Reconversion, as reported in *Railway Age*, December 14, 1946, page 1019.

According to the M. C., the Attorney General, through his reply to Vice-Admiral Smith, has "opened an avenue" for the respondents to enter into negotiations, pursuant to "appropriate direction" from the I. C. C. It added that it is hoped that agreements will be reached "upon the basis of which there may be predicated sufficient rate readjustments to permit resumption of private operation in the domestic steam-

(Continued on page 516)

## Anti-Trust-Relief Bill Goes to Senate

Amended version of S. 110 is sent to upper house with committee approval

The Senate committee on interstate and foreign commerce on March 3 reported favorably to the Senate an amended version of S. 110, the bill introduced by Senator Reed, Republican of Kansas, to stay the operation of anti-trust laws with respect to carrier rate-making procedures and other joint actions approved by the Interstate Commerce Commission. The favorable report had been adopted by a 7-to-2 vote at an executive session of the committee held earlier the same day.

The two negative votes were cast by Senator Tobey, New Hampshire Republican, and Senator McFarland, Democrat of Arizona, the former announcing that he would file a minority report. Although absent from the session, Senators McMahon of Connecticut, Myers of Pennsylvania, and Magnuson of Washington, Democrats, notified the committee that they also favored the measure. No word was received from Senator Brewster, Republican of Maine.

The committee-approved bill, which was reported to the Senate by Senator Reed, contained three amendments. The first amendment, an addition to paragraph (4), would permit approval also of agreements between carriers of different classes covering matters relating to freight classifications.

"The purpose of that paragraph is to deny, with certain exceptions, authority to approve agreements between carriers of different classes," the committee report noted. "The bill, as introduced, authorized such approval only of agreements limited to matters relating to transportation under joint rates or over-through routes. . . . It is thought to be unwise to prohibit conferences between carriers of different classes looking toward similarity or uniformity in the description and classification of individual items of freight when moved by whatever class of carrier."

The second amendment would clarify the language of paragraph (6) to make it plain that the I. C. C. shall not approve any agreement which establishes a procedure for the determination of any matter through joint consideration unless it finds that under the agreement there is accorded to each carrier the unrestrained right to act contrary to and independently of the initial determination or report, or any subsequent determination or report, arrived at through such procedure.

The third amendment adds two provisos to paragraph (9), in lieu of the one con-

tained in the bill as introduced. The changes to paragraph (9) are along the lines of modifications suggested by Robert W. Purcell, vice-president, law, of the Chesapeake & Ohio, as noted in *Railway Age* of February 22, page 425, although Mr. Purcell's basic position was that the bill should be limited to rate conferences.

**Limited Scope**—With the committee changes the paragraph says in part that "no agreement approved by the commission under this section, and no conference or joint or concerted action pursuant to and in conformity with such agreement as the same may be conditioned by the commission, shall be deemed to be . . . monopoly in restraint of trade or commerce within the meaning of the anti-trust laws; provided that the approval by the commission of any agreement concerning, or providing rules or regulations pertaining to or procedures for the consideration, initiation or establishment of time schedules, the interchange of facilities, the settlement of claims, the promotion of safety, or the promotion of adequacy, economy or efficiency of operation or service shall not be deemed to be approval of any subsequent modification or amendment thereof or of any supplemental or other agreement made pursuant to any provision contained in the original approved agreement."

The new proviso further stipulates that the approval by the commission of such agreements "shall not be deemed to be approval of any joint or concerted action taken pursuant to any provision of such agreements."

"In paragraph (9) of the bill, as originally introduced," the committee report explained, "there was no difference between the treatment of agreements dealing with rates, fares, charges (including charges between carriers), classifications, divisions, allowances or routes, on one hand, and agreements dealing with time schedules, the interchange facilities, the settlement of claims, the promotion of safety, or the promotion of adequacy, economy, or efficiency of operation or service, on the other hand."

**Rate Provision Stands**—"In the case of a joint organization dealing with rates, it was contemplated in the bill, as introduced, that the basic agreement setting up the joint organization and defining the nature and scope of its activities and its mode of procedure, would be submitted to the commission and that approval of such basic agreement would operate to remove from the application of the anti-trust laws any action taken thereunder."

"The new proviso which the amendment would add to paragraph (9) would make no change as to agreements dealing with rates, fares, charges (including charges as between carriers), schedules, divisions, allowances, or routes. These provisos apply only to agreements dealing with time schedules. . . . or efficiency of operation or service. With respect to such agreements . . . the new language provides that approval of the basic agreement setting up joint organizations and procedures shall not be deemed to be approval of any supplemental or other agreement or of any joint or concerted action resulting from

the organization and procedures authorized by the approval of the basic agreement."

In addition to describing the amendments, the committee's report observed that "the broad purpose and objective of the bill, as reported, is to provide means for removing and avoiding conflict between the national transportation policy and the policy of the anti-trust laws, and in that way to bring an end to the confusion, uncertainties, and inconsistencies which now threaten serious harm to all interests, and particularly to shippers, who are concerned with an adequate transportation system capable of rendering economical and efficient service to the public under reasonable and nondiscriminatory rates."

**A "State of Confusion"**—The report stated that a "large measure of cooperation and collective action" by and among common carriers is necessary if the national transportation policy is to be effectuated and the public is to receive the kind of transportation service to which it is entitled and if the rates are to be reasonable and nondiscriminatory. It said that questions which have arisen in recent years concerning the nature and extent of cooperation among carriers which is possible under the anti-trust laws have resulted in a "state of confusion" which menaces long-standing practices in the field of transportation "proven over the years to be highly satisfactory to shippers and carriers alike and also to governmental agencies charged with regulatory duties."

"A question of policy for Congress is therefore presented and it is the plain duty of Congress to take the necessary remedial steps for the purpose of harmonizing and reconciling the policy of the anti-trust laws, as applicable to common carriers, with the national transportation policy in such a manner as to protect the public interest," the report continued. "The bill here reported is designed to serve that purpose and to bring about an accommodation of these two great policies. It is plain that in the field of transportation both policies cannot be applied in full measure and that it is the function of Congress to determine and state its purpose and intent in this respect. Obviously, Congress cannot lay down the rules specifically giving the answers to the multiple problems in so vast and intricate a field. Under these circumstances, it is for Congress to formulate a general rule and leave its application to be worked out by a qualified administrative body. That is what would be accomplished by the new section . . . of the Interstate Commerce Act."

The report said that "there can be no doubt" that public interest would be adversely affected if the anti-trust laws were so applied to common carriers as to prevent or discourage collaboration between carriers "as is essential to or in furtherance of" the requirements of the Interstate Commerce Act and "the purpose of the national transportation policy." "It will not be overlooked," it continued, "that in the field of transportation important objectives of the anti-trust laws are achieved by means of government regulation. For example, the anti-trust laws are designed to protect the public from

unreasonable and excessive prices or unduly limiting production. But resort to such laws is not necessary for that purpose in the case of common carriers because the objective of reasonable prices is achieved by other means, that is, by clothing governmental authorities with power to fix reasonable rates and charges."

**Concern Over Pending Suits**—According to the report, the anti-trust actions pending against railroads—in the so-called Georgia and Lincoln, Neb., cases—have "caused grave concern among all those having direct interest in transportation, who see in the situation a threat to long-standing practices in the transportation industry that were developed in cooperation with the shippers and have proved their worth."

"It is recognized by all who are familiar with the problems of transportation that the carriers subject to the . . . act cannot satisfactorily meet their duties and responsibilities . . . and the basic purposes of the act cannot be effectively carried out, unless such carriers are permitted to engage in joint activities to a substantial extent," the committee report stated. "The public interest will not be served if there is permitted to continue the existing state of uncertainty as to the extent to which carriers may engage in joint activity without risk of violating the anti-trust laws."

The committee said that it is obvious that Congress cannot itself, by legislation, deal with each instance of joint action by carriers to resolve whatever conflict may exist between the principles of the anti-trust laws and the national transportation policy. It added that the "only practical approach" to the problem is to grant a "competent" administrative agency, such as the I.C.C., the authority to resolve the conflict in specific instances of proposed joint action by carriers.

That Chairman Robert R. Young of the C. & O. and Allegheny Corporation remained dissatisfied with the bill was shown by a statement he issued March 5 in his new role of chairman of the recently-organized Federation for Railway Progress.

"The Federation for Railway Progress," Mr. Young said, "is opposed to the Bulwinkle (Reed) bill. We recognize for practical purposes the necessity of maintaining rate conferences in so far as they are suitably regulated. However, we are categorically opposed to any attempt to legalize other non-competitive practices. For example, this bill would permit agreements among railroads to control such services to the traveler as air conditioning, streamlining, flowers on dining car tables, or even the degree of comfort to be provided in a train seat—with I. C. C. approval. We believe that such competitive services should be left to the individual initiative of each railroad."

### Emergency Board on I. C.

H. H. Schwartz, who retired recently from the chairmanship of the National Railway Labor Panel, has been appointed by his successor, Frank P. Douglass, to membership on a panel board created to investigate a dispute between the Illinois

Central and the Brotherhood of Railway Clerks. The dispute involves the union's demand for upward adjustments and equalizations in wage rates, and Mr. Schwartz's colleagues on the board are Norman J. Ware and Eugene L. Padberg.

### Bill Proposes Emergency Powers Over Motor, Water Carriers

Chairman Wolverton of the House committee on interstate and foreign commerce has introduced H. R. 2338 to give the Interstate Commerce Commission the same permanent emergency powers over motor and water carriers that it now has with respect to railroads. The bill would accomplish its purpose by amending sections 204 and 304 of the Interstate Commerce Act, such amendments to take effect upon the termination of title I of the Second War Powers Act (now scheduled to expire March 31) which has given the commission the emergency powers on a temporary basis during the war period.

### Asks \$87,532,000 More for Airways in Fiscal '48

Additional appropriations totaling \$87,532,000 for the Civil Aeronautics Board for the fiscal year ending June 30, 1948, have been asked by President Truman in a supplemental budget estimate which he has submitted to Congress. The previously-submitted fiscal '48 budget estimates proposed \$102,462,000 for C. A. A., so the additional amount sought would bring the total to \$189,994,000.

Largest item of the proposed additional appropriations would be \$65,000,000 for the federal-aid airport program. Then comes \$11,114,000 to increase from \$25,194,000 to \$36,308,000 the amount proposed for the establishment of air navigation facilities. The third largest item, \$6,877,000, would be added to the \$54,552,000 originally proposed for the maintenance and operation of air navigation facilities; while another \$1,900,000 would enable C. A. A. "to strengthen its technical development work, which is extremely important in view of the technological advances which are taking place in the field of electronics."

### Bill to Alter Rule on Profits of Carrier Officers

Chairman Wolverton of the House committee on interstate and foreign commerce has introduced H. R. 2331 to amend that part of the Interstate Commerce Act's section 20a(12) which makes it unlawful for any officer or director of any carrier "to receive for his own benefit, directly or indirectly, any money or thing of value in respect of the negotiation, hypothecation, or sale of any securities issued by such carrier, or to share in any of the proceeds therefor."

The bill would add to the foregoing a new proviso reading as follows: "Provided, however, That where any carrier shall have any dealings in securities with another corporation, firm, partnership, or association when the carrier shall have as officer or director any person who is at the same time a director, member, manager, or purchasing or selling officer of, or who has any substantial interest in such

other corporation, firm, partnership, or association, participation of such officer or director of such carrier in the profits of such other corporation, firm, partnership, or association, resulting from such dealings, shall not be considered a violation of these provisions, if such dealings shall be with the bidder whose bid is most favorable to such carrier, to be ascertained by competitive bidding under regulations prescribed by rule or otherwise by the [Interstate Commerce] Commission, and if such participation is due solely to such officer's or director's position with, or interest in, such other corporation, firm, partnership, or association, and not to his position with such carrier."

### House Bill to Take Sickness Benefits Out of Jobless Act

Representative Howell, Republican of Illinois, has introduced H. R. 2310 to strike from the Railroad Unemployment Insurance Act the sickness and maternity benefits which were added last year by the Crosser Act. While the bill is thus similar to the Senate bill (S. 670) sponsored by Senator Hawkes, Republican of New Jersey, it does not contain the tax-relief provisions of the Hawkes bill.

As noted in the *Railway Age* of March 1, page 470, the latter would put the unemployment-insurance taxes on a sliding-scale basis which would immediately reduce this levy (paid entirely by the railroads) from 3 per cent to 1/2 per cent of taxable payroll.

### Pension Act Amendment

Representative Shafer, Republican of Michigan, has introduced H. R. 2115 "to provide for crediting active service in the armed forces of the Dominion of Canada as military services for purposes of the Railroad Retirement Act."

### House Gets Reparations Bill Favored by N. I. T. League

Chairman Wolverton of the House committee on interstate and foreign commerce has introduced H. R. 2335 which embodies National Industrial Traffic League recommendations with respect to the Interstate Commerce Act's provisions relating to reparations and time limits on claims for overcharges and undercharges. The bill would apply to all carriers subject to the act the same provisions with respect to those matters that are now applied to railroads.

### Supreme Court Hears Argument on Class-Rate Decision

The Supreme Court this week heard argument in connection with its review of the decision of the special three-judge federal court sitting at Utica, N. Y., which last May upheld the Interstate Commerce Commission's interim order in the No. 28300 class rate case.

The commission order, which has been attacked by northern states and several western railroads, provides that class rates in the South and West (except in the territory west of the Rocky mountains) shall be reduced 10 per cent and that Official Territory class rates shall be in-

creased 10 per cent, pending the development of a new uniform class-rate structure in conformity with the decision's other findings. In upholding the commission, the Utica court enjoined the establishment of the interim adjustment until the Supreme Court acts on the losing parties' appeal.

### Senate Committee Would Give O. D. T. \$143,000

The proposed additional appropriation with which the Office of Defense Transportation would continue to function until next June 30 has been restored by the Senate committee on appropriations to the \$143,000 requested by President Truman. The item, which the House reduced to \$130,000, is carried in H. R. 1968, the so-called "urgent deficiency appropriation bill" which came to the Senate from the appropriations committee last week.

### Cost of Post Driving Becomes Operating Expense

Reporting on further hearing in the No. 29140 proceeding, the Interstate Commerce Commission has decided that the cost of pressure grouting and post-driving work to arrest water pockets and mud heaves in the roadbed should be charged to operating expense account No. 202, Roadway Maintenance. The report reverses Division 1's prior report which found that the cost of post driving (the only matter dealt with in that report) should be charged to road investment account No. 3, Grading—except that the cost of removing the ballast and resurfacing was chargeable to operating expenses.

The present decision follows generally the proposed report of Examiners Howard Hosmer and Homer H. Kirby which was noted in the *Railway Age* of January 27, page 149. Thus the commission first found that the cost of pressure grouting was an operating expense, and then put post-driving in the same category in the interest of accounting uniformity. Commissioner Miller filed a dissenting opinion, while Commissioners Barnard and Mitchell, the former "being necessarily absent," did not participate.

### Suspends Geneva Steel Rates

The Interstate Commerce Commission acted on February 28 to suspend from March 1 until April 1 the so-called Geneva steel rates proposed for movements to Pacific coast destinations from Geneva, Utah, where the Geneva Steel Company, a United States Steel Corporation subsidiary, operates a steel mill formerly owned by the government. The proceeding, I. & S. Docket No. 5464, has been assigned for oral argument before the commission at Washington, D. C., March 11—"upon the protest and replies of record without the taking of testimony."

As the commission's announcement put it, the argument will be for the purpose of considering whether: "(1) The order of suspension should be vacated or if it should be permitted to expire with March 31, 1947, and the proceeding be discontinued; or (2) the schedules should be further suspended for the remainder of

the full suspension period permitted by the act; or (3) the investigation should be continued in event the schedules are not further suspended."

As noted in the *Railway Age* of February 22, page 426, the proposed rates, which are being protested vigorously, would be 48 cents per 100 lb. to San Francisco, Calif., Los Angeles, and Portland, Ore., and 54 cents per 100 lb. to Seattle, Wash., and Tacoma—reductions of 22 cents under "normal" rates of 70 and 76 cents. However, the proposed rates are higher by the amount of the Ex Parte 162 increases than rates accorded the government when the Geneva plant was operated for its account during the war.

### Would Give I. C. C. Power Over Radio and Train Rules

Interstate Commerce Commission authority over railroad safety matters would be augmented by powers to require the installation of train-communication systems and to prescribe rules and regulations "with respect to the operation of trains" under the provisions of H. R. 2299 which has been introduced in the House by Chairman Wolvertson of that body's committee on interstate and foreign commerce. The bill proposes to rewrite the so-called Signal Inspection Act of 1937 which is now embodied in section 25 of the Interstate Commerce Act.

Under the proposed revision, the list of signaling and other safety devices, which the commission could require railroads to install, would be expanded to include "telegraph, telephone, radio, inductive, or other wayside and/or train-communication systems." The proposed grant to the commission of authority to establish train-operating rules is accompanied by a provision which would require railroads to file with the commission, within three months after the enactment date, such rules and regulations as are in effect on their respective lines. And the carriers would thereafter be required to file "any revision, amendment, or modification of such rules and regulations within 30 days after the effective date of such revision, amendment, or modification."

### F.D.D.M. & S. Must Comply with I. C. C. Interlocking Rule

The Interstate Commerce Commission in a report by Commissioner Patterson has denied applications of the Fort Dodge, Des Moines & Southern for permanent exemption from sections 305 and 310 of the commission's rules, standards and instructions for the installation of systems, devices and appliances covered by the so-called Signal Inspection Act of 1937 which is now embodied in section 25 of the Interstate Commerce Act.

Section 305 of the regulations requires that "track circuits shall be provided throughout interlocking limits, except when otherwise authorized by the commission"; and section 310 requires that "electric switch locking shall be provided, except when otherwise authorized by the commission." Both sections became effective September 1, 1941.

On September 23, 1946, the Fort Dodge filed seven applications seeking exemption from the requirements of the sections with respect to the seven points where its lines cross the tracks of other railroads at grade. Among other evidence, the applicant stated that it was not in a position financially to make the installations.

In denying the applications, the commission said that it "cannot recognize financial considerations as an excuse for applicant's failure to provide itself with appliances which afford adequate safety to the traveling public and the railroad employees." It also noted that the applicant has been operating in violation of the regulations since they became effective in 1941; but it promised not to institute prosecution if compliance is effected on or before September 1, 1948.

The same finding as to violations was made with respect to Chicago & North Western, Chicago Great Western, and Minneapolis & St. Louis which have thus far failed to make the required installations at points where their lines cross the Fort Dodge's tracks. Here again the commission gave assurances that there would be no prosecution if the installations are effected on or before September 1, 1948.

Meanwhile the decision requires that Fort Dodge trains and those of the other roads which have not made the installations must come to a complete stop before moving over the intersections involved.

### Car Service Orders

The Interstate Commerce Commission has issued Service Order No. 689 to direct the Belt of Chicago and the Indiana Harbor Belt to "transport, move, or switch, and deliver an equal number of return empty refrigerator cars to each line haul railroad as were received from each line haul railroad in loaded movement as ordered by this commission's refrigerator car agent, C. W. Taylor . . . regardless of ownership or markings of particular cars, and without regard to the railroad from which the empty cars were received in loaded movement." The order said that the Belt and I. H. B. have been engaging in the practice of returning the identical empty refrigerator car to the railroad from which it was received under load, "thus causing additional switching resulting in delay to the movement of such empty refrigerator cars."

Fourth Revised Service Order No. 104, which authorizes the substitution of two or three refrigerators for one box car ordered for westbound shipments, has been modified by Amendment No. 4, which broadens the western territory to which the reefers may be loaded from the East and Southeast.

Amendment No. 2 to Service Order No. 661 removes the Gulf port controls from the order which will continue, however, to require permits for shipments of certain food products moving from the Pacific Northwest through Atlantic ports.

Service Order No. 369 which provides for "super-demurrage" charges on closed box cars has been modified by Amendment No. 9 to make it applicable to import, export, coastwise and intercoastal traffic,

which was formerly exempt. A like extension of Service Order No. 653 which provides for "super-demurrage" charges on gondola and hopper cars has been effected by Amendment No. 2 which, however, leaves the exemption on "import, export, coastwise or intercoastal coal, bulk grain or explosives traffic, during the period such traffic is held at ports for transfer to or from vessels or held at United States-Canadian border crossings."

Service Order No. 551 which maintains controls on the tidewater coal movement through Hampton Roads, Va., ports has been modified by Amendment No. 2 which substitutes H. B. Smith for E. D. Enney as commission agent at Norfolk, Va. Amendment No. 6 to Service Order No. 648 sets back, from March 10 until June 30, the expiration date of that order which provides car supply priority for foreign relief grain and requires permits for other carload shipments of grain at specified western markets.

### Would Have House Committee Probe Rail Accidents

Representative Lane, Democrat of Massachusetts, has introduced House Resolution 122 to direct that body's committee on interstate and foreign commerce to investigate railway accidents of 1946 and subsequent years "as the committee may deem important, with a view to ascertaining the cause or causes therefor, particularly as they may relate to the laws and regulations and the administration of laws and regulations relating to operation and inspection of railroad and safety equipment and devices and the adequacy of railroad facilities."

The committee would be further directed to investigate any other matters which it deems necessary "for the purpose of obtaining information to enable it to make recommendations for the improvement of safety on the railroads."

### Expect "Satisfactory" First Quarter Brake Shoe Output

With government "assistance" in the procurement of pig iron and steel, the outlook for the production of brake shoes in the first quarter of 1947 is "satisfactory," according to the Civilian Production Administration Branch of the Office of Temporary Controls. The agency predicts that brake shoe producers will "meet the railroads' minimum needs with something to spare, thus assuring a slight build-up of depleted inventories of railroads and foundries."

Noting that brake shoe production in December, 1946, was "about 8 per cent" above the minimum monthly requirements and 5 per cent above the November, 1946, output, the C. P. A., whose forecasts were contained in a report, "Production Outlook—1947," added that while government assistance in procuring raw materials for the foundries will cease after the first quarter, producers are confident that they will secure sufficient quantities of scrap, pig iron and steel to meet the minimum requirements of the transportation system.

With respect to freight cars, the outlook

observed that "the . . . shortage which plagued the American railroads in 1946 is expected to continue in 1947, and will require an acceleration of the car building program as well as a flow of additional steel for the maintenance of freight cars, locomotives and passenger cars."

## Asks I. C. C. to Order Rail-Water Rate Parley

(Continued from page 512)

ship trades when the Maritime Commission has withdrawn."

With respect to the abandonment of coastwise service, the M. C., noting that only 9 of the 17 freighters that were placed in that service when coastwise and inter-coastal shipping was resumed in 1945 have been operating recently, added that "although one private operator is resuming service in the Atlantic-Gulf trades and another is weighing the possibilities, it is considered doubtful whether there will be any general resumption of operations because of the economic factors that make profit doubtful."

**Sees a Paradox**—Commenting on the M. C.'s action, Vice-Admiral Smith declared that post-war conditions have defeated the government's attempt to restore to "healthy private operation" the steamship lines which, he said, in 1942 furnished ships sorely needed for World War II. "The failure of traffic to divert to the water carriers is further hard to understand in view of the apparent seriousness of the box car shortage," he said. "This paradox is emphasized by the fact that when the box car shortage began to assume critical proportions early last fall Reconversion Director Steelman requested the Office of Defense Transportation to direct the diversion of freight, to the extent feasible, from rail carriers to the water lines. Actually, very little diversion . . . resulted and both the Pacific coastwise and Atlantic-Gulf trades continued to operate at considerably less than capacity."

## Shippers' Schedules, Terminal Delays May Be Probed

Senator Reed, Republican of Kansas, chairman of a subcommittee of the Senate committee on interstate and foreign commerce which is investigating the freight car shortage indicated this week that the subcommittee may confer with railroad representatives in the near future in an effort to "find some answer" to complaints that failure to maintain railroad efficiency "up to par" has resulted in transit and terminal delays on cars after they have been loaded or unloaded. At the same time, he said the subcommittee hopes that "some way can be found" to induce shippers to load and unload cars through the whole week.

According to a memorandum made public by the subcommittee chairman, the recently announced program which is expected to produce 10,000 new cars monthly, starting in June, should be "carried out from 24 to 36 months to provide an ample supply of . . . cars." In this connection, he stated that "about 40,000" new cars were built in 1946, as against 65,000 re-

tired, which, he said, left the car supply "25,000 short of what it had been previously."

Senator Reed further asserted that the New England territory moves out 300 empty cars for every 1,000 loaded cars it receives. "If this same relationship applies in the reverse, and the grain-loading territory of the West lost 300 cars out of the 1,000 it loaded, it would be out of business in 60 days," he said. "There is no way this situation can be handled and the grain loading territory of the West protected against complete failure of car supply except that some of these cars be moved West empty. This is the conclusion reached by experienced railroad transportation officials both East and West."

"There is no specific formula . . . setting out the number of freight cars any railroad should own," he said. "The general rule is that each railroad should supply itself with sufficient cars to serve the needs of shippers using its line. For that reason, the relationship of freight cars of any type, especially box cars, on the rails of a railroad, as compared to its ownership of that type car, is the commonly accepted index of equitable location of cars. This is not a perfect formula, but it is the one most readily available and most commonly used."

Noting that a plan has been put into effect whereby a certain percentage of west-bound empties are loaded for western destinations, Senator Reed said that he has no objection to stopping empty cars moving west for loading to designated destinations, "providing that such loading would not delay the movement of the car westward more than three to five days, as against a complete empty movement."

## Reed Introduces Bill to Give I. C. C. Per Diem Power

Senator Reed, Republican of Kansas, has introduced S. 735 to bring per diem and other car-rental charges under the jurisdiction of the Interstate Commerce Commission. The bill would rewrite paragraph 15(a) of the Interstate Commerce Act's section 1 to extend the commission's authority over car service to "the charges therefor, as between carriers and owners."

## Sale of 423 Surplus Tank Cars to be Restricted by W. A. A.

In order that they may be kept in continuous service to fill increasing demands for liquefied petroleum gas, 423 surplus government-owned tank cars will be offered for sale by the War Assets Administration "only to producers who now have them under lease from the government," it was jointly announced last week by the Office of Defense Transportation and the Civilian Production Administration branch of the Office of Temporary Controls. The list of producers has been supplied the W. A. A. by the O. D. T.

The announcement followed issuance by the C. P. A. of Direction 26 to Priorities Regulation 13, which directed that sales of those cars by the W. A. A. be subject to O. D. T. direction. The O. D. T. said that while the tank cars were usable for

the transportation of other materials, no other available type of cars can be substituted for them in the transportation of liquefied gas. It added that it "wished to be assured" that the 423 cars are continued in that use at the "highest possible rate of efficiency."

In determining the number of cars which each company will be permitted to purchase, the O. D. T. said that it had given consideration to the number of new cars which any such company had received or will receive from June 1, 1946, to March 31.

## I. C. C. Reports on Bills

Assuming the natural position of being in favor of its own recommendations, the Interstate Commerce Commission has endorsed two Senate bills introduced by Chairman White of that body's committee on interstate and foreign commerce to carry out various legislative suggestions of the commission's annual report. At the same time the commission has expressed its opposition to S.446 whereby Senator Wherry, Republican of Nebraska, proposes to amend the Interstate Commerce Act to make it mandatory instead of permissive for the commission to impose car service rules and regulations on the railroads.

The commission's views were submitted to Chairman White in three recent reports from the chairman of its legislative committee—Commissioner Splawn. The bills endorsed are S.249 and S.290. The former would provide procedures for voluntary readjustments of railroad financial structures, such procedures to be embodied in a new section (20b) of the act, and limited in their applicability to roads not undergoing reorganization in equity receiverships or proceedings under section 77 of the Bankruptcy Act. H.R.2298, a bill with similar provisions, was introduced in the House last week by Chairman Wolverton of that body's committee on interstate and foreign commerce.

**For Association Reports**—S.290 proposes various other Interstate Commerce Act amendments, including the extension to carrier associations of commission authority to require reports and inspect records. The bill would also amend section 20(6) to make it applicable to the records of persons "which directly or indirectly through rental agreements with shippers or otherwise furnish cars to or for use by any carrier by railroad or express company."

Among other provisions of the bill are those which would amend section 5(2) to eliminate the requirement that a public hearing be held in all merger and acquisition cases where carriers by railroad are involved amend section 3(2) to give the commission authority to prescribe rules for the extension of credit by express companies; and modify provisions relating to service of notice to ease the commission's work in that respect. This bill, too, acquired a House counterpart last week in another Wolverton bill, H.R.2297.

The commission's report on S.290 included favorable comment on each of the foregoing and other provisions. As to the

(Continued on page 518)

# READING COMPANY

Condensed Annual Report for Year Ended December 31, 1946

## To the Stockholders:

Although earnings of all railroads were seriously affected in 1946 by wage increases, higher material costs, and traffic losses due to unsettled industrial conditions, Reading Company was able to maintain a strong financial position and improve its physical property. Increased traffic in the closing months, temporary rate increases, and tax adjustments contributed substantially to net income.

## REVENUES AND EXPENSES

Revenues for the year declined \$7,925,388, and operating expenses decreased \$2,080,399, after excluding amortization adjustment in 1945 of \$11,895,680. The ratio of operating expenses to revenues was 82.3%, compared with 78.3% in 1945, excluding amortization adjustment. Increases in wages and in fuel and material costs were the major factors in the higher operating ratio in 1946.

## FREIGHT RATES

Temporary increases in freight rates and charges granted by the Interstate Commerce Commission, effective from July 1, 1946, to December 31, 1946, produced approximately \$2,650,000 additional revenue for the Company, representing an increase of 6.3%. By order entered December 5, 1946, the Commission authorized permanent increases in freight rates and charges to become effective January 1, 1947, in substitution for the temporary increases. Similar increases in intrastate rates were authorized by the Pennsylvania and New Jersey Utility Commissions. Based upon anticipated freight traffic in 1947, it is estimated that the additional revenue to be derived from the increased rates and charges will be \$14,400,000 per year, or 17.6%, in excess of that which would have been earned under rates in effect on June 30, 1946.

## WAGES

General wage increases granted railroad employees of 16 cents per hour, effective January 1, 1946, and 2½ cents additional, effective May 22, 1946, increased the Company's payroll expense \$8,900,000 and its payroll taxes \$580,000, a total increase of \$9,480,000 in 1946. Wages paid for the year aggregated \$57,231,347, the highest in the history of the Company, of which \$53,977,772 was charged to operating expenses, representing 53.2 cents per dollar of operating revenue, as compared with 43.8 cents in 1945.

## TAXES

Total tax bill was \$10,366,329, exclusive of credit adjustments applicable to prior years aggregating \$1,128,493, or a net accrual of \$9,237,836, including payroll taxes amounting to \$3,545,231.

## FINANCE

The Company paid, redeemed or purchased bonds and other obligations aggregating \$2,897,200, resulting in annual interest savings of \$90,327. Conditional sales agreements were entered into for financing the cost of ten diesel switching locomotives and 80% of the cost of 850 steel box cars. These obligations, which will aggregate \$3,377,000, will be paid in sixty monthly installments, with interest at 1½% per annum. Since December 31, 1936, funded debt has been reduced \$34,409,467, or 25.9%; annual interest charges have been reduced from \$5,408,649 to \$3,058,831, a decrease of \$2,349,818, or 43.4%; and average interest rate was reduced from 4.076% to 3.112%, or 23.7%.

## IMPROVEMENTS

During the year the following new equipment was placed in service: 15 Class T-1 type 4-8-4 steam locomotives; ten 1,000 hp. diesel switching locomotives; and 912 all-steel box cars. As of the end of the year, the Company had ordered or authorized the construction of the following: seven Class T-1 type 4-8-4 steam locomotives; fifteen 1,000 hp. diesel switching locomotives; 1,088 all-steel box cars; 100 all-steel bulk cement cars; 25 all-steel caboose cars; four all-steel carfloats; and eight multiple unit and eight trailer passenger cars. The Company's wholly-owned motor subsidiary acquired 27 units of new equipment and placed orders for 35 additional units.

Substantial progress was made in the renewal and improvement of roadway facilities, including strengthening of bridges to permit use of heavier power, installation of color light signals and modernization of interlocking plants, construction of track facilities to serve new industries, installation of longer switches to permit increased schedule speeds between Philadelphia and New York, and extension of engine house and installation of modern turntable at Rutherford. Among the more important construction projects undertaken during the year were a new 986-foot bridge over the Schuylkill River at Reading and an 8,000-foot spur to serve a new electrical generating plant at Shamokin Dam, Pa.

The Company appreciates the support and co-operation of its patrons who shipped and traveled "via Reading" and the loyal and efficient service of its 20,000 officers and employees which made possible the accomplishments of the year.

## CONDENSED EARNINGS STATEMENT

REVENUES FROM OPERATION	December 31		Increase or Decrease
	1946	1945	
Hauling anthracite .....	\$ 23,847,046	\$ 19,260,697	\$ 4,586,349-I
Hauling bituminous coal .....	18,416,106	20,019,879	1,603,773-D
Hauling merchandise .....	44,645,033	53,292,570	8,647,537-D
Carrying passengers .....	9,655,266	11,630,743	1,975,477-D
Mail, express, and other transportation services .....	4,862,670	5,147,620	284,950-D
Total Revenues .....	\$101,426,121	\$109,351,509	\$ 7,925,388-D
<b>EXPENSES OF OPERATION</b>			
Wages .....	\$ 53,977,772	\$ 47,895,762	\$ 6,082,010-I
Fuel .....	6,826,027	6,942,178	116,151-D
Rails, ties, and other material .....	10,716,720	8,895,459	1,821,261-I
Payments to contractors, associations, other companies and individuals for services and expenses .....	6,648,253	11,558,094	4,909,841-D
Depreciation, amortization and retirements .....	5,345,775	10,303,453	4,957,678-D
Amortization adjustment .....		11,895,680	11,895,680-D
Total Expenses .....	\$ 83,514,547	\$ 97,490,626	\$13,976,079-D
Net Revenue from Operations ..	\$ 17,911,574	\$ 11,860,883	\$ 6,050,691-I
Tax accruals .....	\$ 9,065,626	\$ 3,901,311*	\$12,966,937-I
Payments for use of equipment and facilities of others, less receipts for use of Company's equipment and facilities by others .....	514,669	19,825*	534,494-I
Net Railway Operating Income ..	\$ 8,331,279	\$ 15,782,019	\$ 7,450,740-D
Income from investment in securities, property rentals, and other income .....	\$ 1,663,670	\$ 1,481,895	\$ 181,775-I
Income Available for Fixed Charges .....	\$ 9,994,949	\$ 17,263,914	\$ 7,268,965-D
Rent for leased roads .....	\$ 2,222,795	\$ 2,555,179	\$ 332,384-D
Interest on funded debt .....	3,058,831	4,010,405	951,574-D
Other fixed charges .....	118,832	75,574	43,258-I
Total Fixed Charges .....	\$ 5,400,458	\$ 6,641,158	\$ 1,240,700-D
Net Income .....	\$ 4,594,491	\$ 10,622,756	\$ 6,028,265-D

\* Credit.

## FINANCIAL POSITION

OWNED	December 31		Increase or Decrease
	1946	1945	
Roadway property and equipment .....	\$389,717,135	\$385,718,785	\$ 3,998,350-I
Less reserves for depreciation and amortization .....	116,126,536	113,461,066	2,665,470-I
Net Roadway Property and Equipment .....	\$273,590,599	\$272,257,719	\$ 1,332,880-I
Property not used in transportation service .....	\$ 11,973,680	\$ 12,203,185	\$ 229,505-D
Stocks, bonds, and notes of other companies .....	49,856,056	49,037,581	818,475-I
U. S. Government securities ..	7,176,360	7,176,360	
Deposits with trustees .....	2,071,177	2,137,526	66,349-D
Current Assets:			
Cash and temporary investments .....	\$ 18,245,734	\$ 16,544,738	\$ 1,700,996-I
Fuel, rail, ties, and other stock material .....	10,601,579	9,488,902	1,112,677-I
Due from agents and conductors, individuals, companies, and U. S. Government .....	7,037,871	18,636,815	11,598,944-D
Total Current Assets .....	\$ 35,885,184	\$ 44,670,455	\$ 8,785,271-D
Other assets .....	2,132,530	1,109,665	1,022,865-I
Total .....	\$382,685,586	\$388,592,491	\$ 5,906,905-D
<b>OWED</b>			
Mortgage and collateral bonds ..	\$ 94,380,864	\$ 96,787,964	\$ 2,407,100-D
Equipment obligations .....	3,897,020	2,096,100	1,800,920-I
Current Liabilities:			
Bank loan .....	\$ 4,000,000	\$ 6,000,000	\$ 2,000,000-D
Wages, unpaid bills, and other liabilities .....	14,006,676	19,915,247	5,908,571-D
Taxes .....	5,028,665	2,776,651	2,252,014-I
Total Current Liabilities ..	\$ 23,035,341	\$ 28,691,898	\$ 5,656,557-D
Other liabilities .....	\$ 3,827,580	\$ 2,927,800	\$ 899,780-I
<b>STOCKHOLDERS' OWNERSHIP</b>			
Capital stock .....	\$139,950,850	\$139,950,850	
Surplus .....	117,593,931	118,137,879	\$ 543,948-D
Total Capital Stock and Surplus .....	\$257,544,781	\$258,088,729	\$ 543,948-D
Total .....	\$382,685,586	\$388,592,491	\$ 5,906,905-D

R. W. BROWN, President

[ADVERTISEMENT]

(Continued from page 516)

provisions which would give it authority to inspect records of carrier associations, the commission said: "The associations or organizations of this kind are numerous. The ones best known are the Association of American Railroads, the American Trucking Associations, Inc., and Freight Forwarders Institute. They include rate bureaus and similar organizations. Such associations are not at present subject to the provisions of the Interstate Commerce Act which authorize us to require the filing of reports by common carriers and others. Manifestly they occupy positions of public importance with respect to transportation and its regulation, and we believe that they might well be required to file reports."

"With respect to our right to inspect and copy accounts, records, etc., of these associations and organizations some provisions of the Interstate Commerce Act as they now read perhaps are susceptible of an interpretation giving us this authority. Occasionally we have exercised it with the acquiescence of parties affected, but our authority is none too clear."

**Prefers "May" to "Shall"**—The Wherry bill, S.446, would amend the act's section 1(14)(a) which provides the I. C. C. with its power to establish car-service rules and regulations. Where it is now provided that the commission "may" establish such rules, the proposed amendment would stipulate that it "shall" do so. The commission's adverse report on this measure recalled that the word "shall" instead of "may" was in the original Car Service Act of 1917, but the "may" was substituted by the Transportation Act of 1920. Also, the commission noted that it has the matter of car service under consideration, in which connection it referred to the recently-instituted No. 29669 investigation of car service rules and practices.

"It seems to us," the report said in closing, "that the question raised by S.446 is one of expediency. Will the public interest best be served by giving car service rules and regulations the status of a statute? Or to put it another way, is it wise to freeze the rules and regulations into relative permanency by formal orders of the commission, or is it best to leave them in a status of fluidity where they can be readily amended without the formality of a modifying order of the commission? Flexibility and speed in administration would be greatly impeded by making the rules and regulations statutory. This is particularly true now that we have the Administrative Procedure Act. We recommend that S.446 do not pass."

## Abandonments

**NORFOLK & WESTERN.**—This road has applied to the Interstate Commerce Commission for authority to abandon a portion of its line from Cooper, W. Va., to Lick Branch, approximately 5.5 miles. As noted in the construction news in this issue

of *Railway Age*, the applicant plans to relocate the segment.

**PENNSYLVANIA.**—This road has applied to the Interstate Commerce Commission for authority to abandon operation of a portion of the Traverse City, Mich., terminal facilities of its subsidiary, the Grand Rapids & Indiana, which has asked for authority to abandon the facilities.

**RAPID CITY, BLACK HILLS & WESTERN.**—This road has applied to the Interstate Commerce Commission for authority to abandon its entire line, extending 33.5 miles from Rapid City, S. D., to Mystic.

**WEST FELICIANA.**—This road has applied to the Interstate Commerce Commission for authority to abandon and dismantle its entire 17.7-mile line from St. Francisville, La., to Angola.

**WINONA.**—Division 4 of the Interstate Commerce Commission has authorized this road to abandon that portion of its line from Warsaw, Ind., to a connection with the Wabash at Wabash Junction, approximately 39.6 miles, in addition to 1.3 miles of sidings and turnouts. The abandonment was approved subject to the usual employee-protection conditions.

## Equipment and Supplies

### Freight Car Production at New Low in February

Domestic orders for 13,729 freight cars, including 1,435 cars ordered from railroad shops, were placed in February, compared with January orders for 9,905 cars, including 1,501 from railroad shops, according to the American Railway Car Institute. Deliveries during February totaled 2,293 cars, including 509 from railroad shops, compared with January deliveries of 2,982 cars, including 717 from railroad shops. The backlog of unfilled domestic orders for freight cars totaled 86,031 on March 1, the institute said.

"The freight car bottleneck continues to be material shortages, primarily steel," S. M. Felton, president of the institute, said. "Lack of this essential material has caused declining production during the past six months. All present indications are that February production should be the turning point and that from here on, assuming greater abundance of materials, progress will be made toward the 10,000 cars per month goal, which has been generally accepted as the basic national need."

### FREIGHT CARS

The SOUTHERN has requested bids by March 20 for the construction of 3,000 50-ton 40½-ft. steel-sheathed box cars and 1,000 50-ton steel hopper cars.

The SOUTHERN PACIFIC has ordered 1,500 50-ton steel gondolas and 500 50-ton automobile cars from the Pressed Steel Car Company, 500 50-ton gondolas from the Ralston Steel Car Company, 100 70-ton gondolas from the General American

Transportation Corporation, 1,500 50-ton lightweight box cars from the American Car and Foundry Company and 1,500 50-ton lightweight box cars from the Pullman-Standard Car Manufacturing Company. (Inquiry for this and other equipment was reported in the *Railway Age* for January 18, page 209.)

The SEABOARD AIR LINE has ordered 300 70-ton hopper cars from the Pullman-Standard Car Manufacturing Company. (Inquiry for this equipment was reported in the *Railway Age* for February 15, page 382.)

### PASSENGER CARS

The CENTRAL OF BRAZIL has ordered 63 stainless steel passenger cars from the Budd Company. Included in the order will be sleeping, dining, baggage, mail and lounge-observation cars, as well as coaches and one business car. The cars, to be air-conditioned, will be built at the Red Lion plant, Philadelphia, Pa. Some coaches will have a capacity of 76 passengers and others will carry 56 passengers. Each of the sleeping cars will have 12 double bedrooms. An inquiry by this road for 35 passenger cars of various types was reported in the *Railway Age* for February 8.

### IRON AND STEEL

The CHESAPEAKE & OHIO has ordered 1,785 gross tons of steel rails from the Bethlehem Steel Company and 89¼ gross tons of structural steel from the Virginia Bridge Company.

### SIGNALING

The CHESAPEAKE & OHIO has placed orders with the Union Switch & Signal Co. for four double-rail Model 31 electro-pneumatic car retarders, totaling approximately 275 rail-feet of retardation. These retarders will be installed in the westbound coal classification yard at Russell, Ky.

The RICHMOND, FREDERICKSBURG & POTOMAC has placed an order with the Union Switch & Signal Co. for the signal material necessary to remotely control the new interlocking functions located north and south of the existing electro-pneumatic interlocking at Doswell, Va. Added lever facilities will be installed in the control machine to operate the new functions consisting of eleven Style A-5 electro-pneumatic switch layouts with color-light signals. The installation will be made by the regular construction forces of the railroad.

The CHICAGO, BURLINGTON & QUINCY has used Union Switch & Signal Co. carrier apparatus and other related material required to move the C. T. C. machine which was installed in 1937, at Brush, Colo., to McCook, Neb., the division headquarters for this territory. This results in a continuous C. T. C. installation now extending from McCook to Derby (Denver), or a total distance of 250 mi., with the entire territory handled by two carrier sections and one direct current section. The use of test panels for temporary control of the installation between Brush and Derby in-

0 50-ton  
American  
1,500 50-  
the Pull-  
ing Com-  
er equip-  
Age for

ordered  
Pullman-  
Company.  
reported  
uary 15,

dered 63  
the Budd  
will be  
lounge-  
ches and  
be air-  
ted Lion  
ches will  
d others  
of the  
edrooms.  
passenger  
d in the

ordered  
rom the  
¼ gross  
Virginia

placed  
Signal  
electro-  
approxi-  
These  
stbound  
Ky.

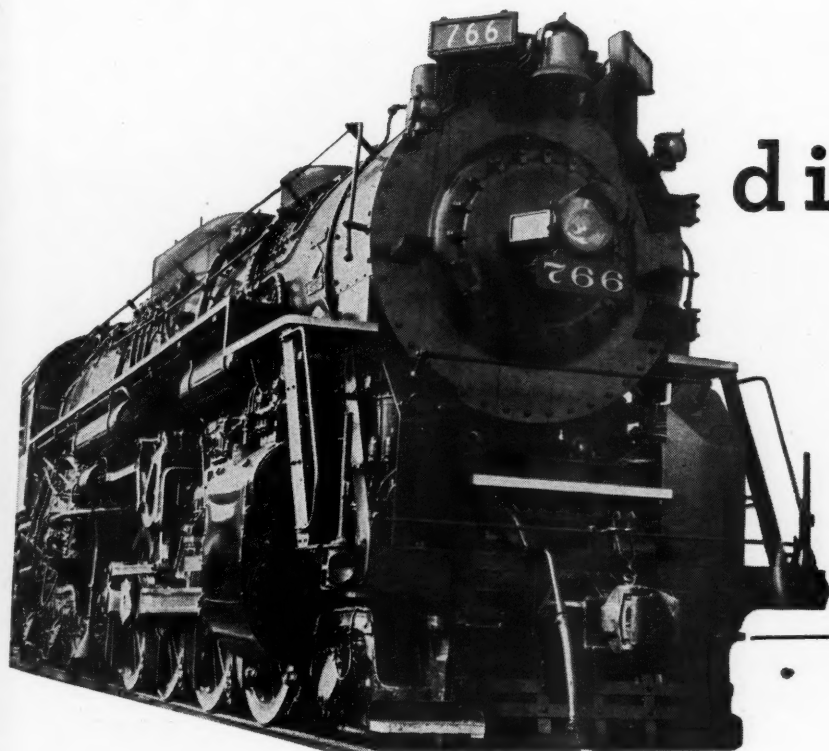
& Po-  
e Union  
material  
ne new  
th and  
eumatic  
ed lever  
control  
ns con-  
o-pneu-  
ght sig-  
by the  
railroad.

QUINCY  
carrier  
ial re-  
e which  
olo., to  
uarters  
a con-  
tending  
, or a  
entire  
ections  
he use  
of the  
by in-

8, 1947

---

# prior planning... pays dividends



**DURING** the past 5 years the Nickel Plate has built up its fleet of Lima-built 2-8-4's until it now numbers 55.

This long term view of traffic problems has enabled this railroad to maintain the necessarily fast schedules required by today's freight demands . . . demands that not only call upon speed but also put a premium on ability to handle maximum payloads at a maximum of efficiency and economy.

LIMA LOCOMOTIVE WORKS



INCORPORATED, LIMA, OHIO

sured continuous C. T. C. operation throughout the territory while the machine was being moved, which operation required 14 hr. from the time the machine was disconnected from the C. T. C. line circuits at Brush on January 21, 1947, until it was reconnected for rendering normal operation from McCook. This field work was carried out by the forces of the railroad.

## Supply Trade

### Lima Built 205 Locomotives in 1946

Unfilled orders for locomotives, power shovels, cranes, draglines and miscellaneous products on the books of the Lima Locomotive Works at the close of 1946 amounted to approximately \$50,000,000, compared with \$36,150,000 at the end of the preceding year, according to the company's annual report. In view of the prevailing practice (other than in the case of locomotives) of duplicate orders being placed with more than one manufacturer in order to insure the earliest delivery, the report said, it is probable that cancellations will reduce the recorded backlog. The shovel and crane division ended the year with a far greater backlog of orders for all sizes of shovels, cranes and draglines than in any previous year. Unless substantial cancellations are encountered, as a result of inability to make required deliveries, the backlog insures at least two years of production, the report continued.

The company built 205 locomotives last year, compared with 250 in 1945. Included in the year-end backlog, were 69 locomotives, the greater part of which was for export, compared with 199 locomotives on order at the end of 1945. While there are a number of inquiries in the market for locomotives for both domestic and foreign requirements, the report said, it is impossible to forecast with any assurance of accuracy to what extent they will result in orders. It is expected, however, that a reasonable amount of additional locomotive business will be available.

Sales last year amounted to \$35,750,229, compared with \$40,885,911 in 1945. Net income was \$2,260,263, compared with \$1,200,120. Current assets at the end of the year were \$16,496,362, compared with \$16,432,781. Current liabilities were \$3,998,746, compared with \$5,484,593.

### Chicago Railway Equipment Co. to Increase Production

The Chicago Railway Equipment Company entered the current year with its backlog of orders more than twice that of 1946, and, barring strikes in the basic industries, a period of high output for 1947 can reasonably be anticipated, A. C. Moore, president, declared in his annual report to the company's stockholders. The most damaging influence on the firm's output during the past year was "work stoppages" growing out of "exorbitant" wage and working demands, he declared.

The board of directors of the company approved an extensive program for modernization of production facilities at its malleable iron foundry at Marion, Ind., and the re-rolling steel mill at Franklin, Pa. This program will increase the output and improve the product, Mr. Moore stated. Net sales for 1946 amounted to \$5,811,131 and earned surplus at the end of the year totaled \$739,403.

### General Railway Signal Orders Enable Capacity Operation

The General Railway Signal Company has a sufficient volume of unfilled orders on hand, including a number of orders for export, to operate at capacity during 1947, Paul Renshaw, president, said in the company's annual report. Incoming business so far this year, Mr. Renshaw added, continues in satisfactory volume.

The gross operating profit for 1946, before the deduction of maintenance and repairs, depreciation and amortization, amounted to \$1,553,239, compared with \$8,692,830 in the preceding year. Net income, after giving effect to tax credits, was \$194,644, compared with \$1,033,865. Current assets at the end of the year were \$10,139,220, compared with \$19,879,207. Current liabilities were \$1,642,271, compared with \$10,961,789.

### American Brake Shoe 1946 Sales Top Previous Year

Net sales of the American Brake Shoe Company in 1946 amounted to \$77,590,394, compared with \$77,236,453 in the preceding year, according to the firm's annual report. Net income was \$4,005,029, compared with \$2,512,069. Current assets at the end of the year were \$32,961,903, compared with \$29,360,007. Current liabilities were \$8,715,262, compared with \$5,912,203.

C. W. T. Stuart, vice-president of the Safety Car Heating & Lighting Co., has been elected a director.

Walter H. Leo has been appointed acting district manager of the Sheffield Steel Corporation, with headquarters at St. Louis, Mo., during the convalescence of Fred E. Finley, district manager of that office.

Alvin L. Krieg, formerly assistant to the director of public relations for the American Steel & Wire Co., a subsidiary of United States Steel Corporation, has been appointed assistant to the general manager of the National Machine Tool Builders' Association.

E. S. Joehnk, assistant engineer maintenance and construction, Baltimore & Ohio Chicago Terminal, with headquarters at Chicago, has been appointed chief engineer of the F. K. Kettler Company, with headquarters at 327 S. LaSalle street, Chicago.

Wallace W. Clevenger has been appointed assistant district manager of the Cleveland, Ohio, warehouse of the United States Steel Company, a subsidiary of the United States Steel Corporation, to succeed K. P. Rindfleisch, who has been

appointed district manager at Pittsburgh, Pa. Mr. Clevenger was formerly a sales representative for the firm in the Cleveland territory.

John A. Cuneo, a member of the organizing staff of Fairbanks-Morse de Mexico in Mexico City for the past two years, has been appointed manager of the Los Angeles, Calif., branch of Fairbanks, Morse & Co., to succeed Harry W. Brown, retired.

Floyd Jones has been appointed sales manager of the portable compressor division of the Davey Compressor Company, Kent, Ohio. He formerly was northeastern district manager in charge of the New York, New England and southeastern Canadian territories.

Charles E. Smith, vice-president of the Towmotor Corporation, Cleveland, Ohio, has been advanced to the newly-created position of executive vice-president. Born at Buffalo, N. Y., Mr. Smith received



Charles E. Smith

his higher education at the University of Michigan. He joined Towmotor as sales manager in 1941 and was appointed vice-president in 1943. Previously he served as branch manager for the American States Insurance Company, at Cleveland.

The Gorman-Rupp Company, Columbus, Ohio, has announced the appointment of a new distributor—Gorman-Rupp Industrial Pumps, 1741-1743 West Madison street, Chicago, under the direction of John Obermaier and Harry J. DeCosta, partners, and Elmer A. Erickson, sales manager.

C. B. Stainback, formerly manager of the industrial sales department of the Westinghouse Electric Corporation, has been appointed industrial syndicate manager, a newly created position. John E. Payne, formerly manager of industrial sales for the central district, succeeds Mr. Stainback as manager of the industrial sales department.

Walter Giger, in charge of railway sales and engineering in the electrical department of the Allis-Chalmers Manufacturing Company from 1931 through 1937, has rejoined the company and has been placed in charge of promoting the firm's interests in the transportation indus-

# Do you know why

## THE FRANKLIN SYSTEM OF STEAM DISTRIBUTION

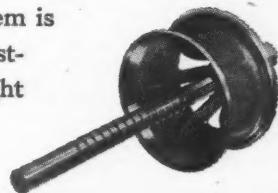
### does a fundamentally better job?

The Franklin System of Steam Distribution has proved capable of increasing drawbar pull of a locomotive by as much as 33% at 70 mph and 44% at 80 mph — or, when this increased power is not being utilized, saving as much as 35% to 50% in fuel at these speeds.

It does this by making possible more efficient use of steam — by increasing the mean effective pressure in the cylinders. Separately controlled intake and exhaust poppet valves are substituted for the piston valve. With poppet valves, shorter cutoffs can be used

without adversely affecting release and compression. Also, clearance volume can be reduced, valves can be opened and closed faster, and steam flow areas can be enlarged. These improvements permit the use of a shorter cutoff for any given horsepower output.

To obtain the ultimate in performance, the application of the Franklin System is essential for new and existing locomotives, both freight and passenger.



### FRANKLIN RAILWAY SUPPLY COMPANY, INC.

NEW YORK • CHICAGO • MONTREAL

STEAM DISTRIBUTION SYSTEM • BOOSTER • RADIAL BUFFER • COMPENSATOR AND SNUBBER • POWER REVERSE GEARS  
AUTOMATIC FIRE DOORS • DRIVING BOX LUBRICATORS • STEAM GRATE SHAKERS • FLEXIBLE JOINTS • CAR CONNECTION

March 8, 1947

42

try, it has been announced. Mr. Giger returns to Allis-Chalmers after serving as chief engineer in the railway locomotive division of Brown-Boveri & Co., Baden, Switzerland.

The General American Transportation Corporation has announced the following appointments: C. G. Ingraham as general purchasing agent and Duane J. Hicks as purchasing agent of the corporation; W. O. Graham, general purchasing agent of the Aerocoach division and W. G. Fredericks, purchasing agent of the Plastics division.

Victor Robert Weiss has been elected president of the O. C. Duryea Corporation, to succeed the late William Bierman, whose death was reported in the *Railway Age* for February 8, page 339. The company also announced that headquarters will be moved from New York to Chicago, but eastern representation will be maintained. Mr. Weiss was formerly with the General American Transportation Corporation for more than 27 years.

## OBITUARY

Henry B. Nickerson, vice-president of the Ashton Valve Company, Cambridge, Mass., died on February 14.

Colonel Harry Scullin, formerly president and chairman of the board of directors of the Scullin Steel Company, St. Louis, Mo., died on February 15.

Frederick T. Vaux, former vice-president and treasurer of the Adams & Westlake Co., died on February 21 in the Henrotin hospital, Chicago. He was 88 years old. Mr. Vaux was associated with the company for over 71 years and remained a director after his retirement from active business in 1923.

## Financial

ALABAMA, TENNESSEE & NORTHERN.—*Acquisition.*—This road has purchased, through the Reconstruction Finance Corporation, 14 miles of railroad trackage and equipment at Camp Villere, La., an installation of the New Orleans Port of Embarkation, it has been announced by the War Assets Administration. The trackage and equipment was purchased by the R. F. C. for \$39,930. According to the W. A. A., the road, for which the R. F. C. acted under its priority right, is in "urgent need" of these transportation facilities. The W. A. A. said that it received eight bids for the trackage, including two "slightly higher" than the R. F. C. offer. It added, however, that the bids were submitted by non-priority bidders and that the R. F. C. was given preference "under the law." The W. A. A. said that in making this award, one of the first of its kind, it has been guided by the objectives of the Surplus Property Act which require that disposition of surplus-owned transportation facilities be made so as to "promote an adequate and economical national transportation system."

AMADOR CENTRAL.—*Lease.*—Division 4 of the Interstate Commerce Commission has approved an arrangement whereby this road, operator of 11.8 miles of line between Ione, Calif., and Martell, leases its right-of-way and other properties which it sold to its parent corporation, the Winton Lumber Company. The latter purchased the line for \$160,000 on December 31, 1945. According to the applicant, the arrangement was entered into because of its financial inability to provide for repair, maintenance and rehabilitation of the properties.

BOSTON & MAINE.—*New Director.*—Phillips M. Payson, a partner in the Portland, Me., investment firm of H. M. Payson & Co., has been elected a director of this road, to succeed Ralph E. Flanders, resigned.

CHICAGO, INDIANAPOLIS & LOUISVILLE.—*Bond Interest.*—The directors of this road have voted to pay the 1946 interest accruals on the first mortgage 4 per cent income bonds of 1983 and the second mortgage 4½ per cent income bonds of 2003.

ERIE.—*Annual Report.*—Operating revenues of this road in 1946 totaled \$127,836,171, compared with \$139,491,426 in the preceding year. Operating expenses were \$109,713,187, compared with \$118,861,130. Fixed charges amounted to \$4,913,028, compared with \$5,682,158. Net income was \$2,994,724, compared with \$5,797,185. Current assets at the end of the year were \$48,977,268, compared with \$53,771,501. Current liabilities were \$25,058,690, compared with \$26,589,815. Long term debt was \$188,481,125, compared with \$187,755,325.

Although the volume of freight carried by the Erie last year was the greatest for any peacetime year except 1923, R. E. Woodruff, president, said in the annual report, earnings were little better than during depression years. The basic reason for the low earnings, he continued, lay in sharply increased expenses and the long delay in getting Interstate Commerce Commission approval to increase freight rates.

"In view of these conditions," Mr. Woodruff added, "it is essential that there be an entirely new and realistic approach toward a sound national transportation policy which will enable the railroads to earn at least a 6 per cent return on property valuation. Such a rate of return is necessary to restore railroad credit to a higher level and place the industry in a position to go forward to meet the needs of an expanding economy."

During 1946, 101 new industries were located on the Erie's line. Mr. Woodruff said it is estimated that the total annual revenue to be derived from the traffic of these industries will be \$1,500,000. In addition, 24 industries already on the line have expanded their plants, with an estimated increase in annual revenue to the Erie of \$472,000.

GULF, MOBILE & OHIO.—*Trackage Rights.*—Division 4 of the Interstate Commerce Commission has found consistent with public interest this road's proposed acquisition of trackage rights over approximately 0.8 miles of the East St. Louis Con-

necting, of which the Terminal Railroad Association of St. Louis is lessee, in East St. Louis, Ill. The commission, however, withheld issuance of an order authorizing the transaction pending the receipt of written acceptance by the applicant and the Terminal Association of a condition requiring both roads to share and share alike expenses incurred by the latter in complying with the usual employee-protection conditions.

The report is on the second supplemental application in Finance Docket No. 14931, the proposed trackage rights being designed to provide a connecting link between the applicant and the Alton for use if and when those roads are unified pursuant to the plan of reorganization for the Alton which has been approved by the I. C. C.

In a prior report of December 11, 1945, the I. C. C. conditionally approved the acquisition by the G. M. & O. of trackage rights over the same line. The applicant, however, decided that the rights secured by it under that agreement would not adequately satisfy its requirements, and it filed an application for authority to construct a line parallel to that of the T. A. Subsequently, however, this construction plan was abandoned when the roads reached the modified trackage-rights agreement which is conditionally approved in the present report.

INTERNATIONAL OF CENTRAL AMERICA.—*Annual Report.*—Operating revenues of this road in 1946 amounted to \$10,462,385, compared with \$8,932,750 in the preceding year. Operating expenses were \$7,012,916, compared with \$5,602,738. Fixed charges were \$439,727, compared with \$460,572. Net income totaled \$2,136,132, compared with \$2,075,991.

MISSOURI-KANSAS-TEXAS.—*Bond Interest.*—This road has authorized the payment on April 1 of one coupon of the adjustment bonds. This coupon represents interest, at 5 per cent, for the six months ended December 31, 1939.

NEW YORK, NEW HAVEN & HARTFORD.—*Bonds of the Norwich & Worcester.*—Division 4 of the Interstate Commerce Commission has authorized this road's lessor, the Norwich & Worcester, to issue \$1,800,000 of Series B first mortgage 4½ per cent gold bonds, the proceeds of which will be applied toward the retirement of a like principal amount of Series A 4½ per cent first mortgage gold bonds which matured March 1. The commission's report reveals that when no bids were received in response to invitations sent to 134 bankers, brokers and insurance companies, the applicant negotiated the sale of the bonds (subject to commission approval) to Adams & Peck, which agreed to take them at par with a 4½ per cent interest rate. The commission approved the sale on that basis. The new bonds will mature March 1, 1967, being callable meanwhile after March 1, 1948, at prices ranging from 105.04 to and including March 1, 1951, to par after March 1, 1963.

NEW YORK, ONTARIO & WESTERN.—*Trustee's Certificates.*—This road has applied to the Interstate Commerce Commission for authority to issue and sell to

Railroad  
in East  
however,  
authorizing  
receipt of  
at and the  
lition re-  
are alike  
comply-  
protection

plemental  
o. 14931,  
designed  
ween the  
and when  
the plan  
which has

11, 1945,  
oved the  
trackage  
applicant,  
ecured by  
not ade-  
and it  
to con-  
he T. A.  
struction  
e roads  
ts agree-  
ed in the

ERICA.—  
venues of  
0,462,385,  
preceding  
0,012,916,  
charges  
572. Net  
red with

d Inter-  
payment  
justment  
erest, at  
ded De-

TFORD.—  
er.—Di-  
ce Com-  
s lessor,  
\$1,800,-  
per cent  
will be  
a like  
per cent  
matured  
reveals  
response  
brokers  
pplicant  
bject to  
& Peck,  
with a  
mission  
he new  
y, being  
l, 1948,  
and in-  
March

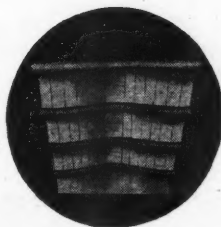
TERN.—  
has ap-  
Com-  
sell to

8, 1947

# Payloads *only* Count

- No revenue comes from the car-loads of coal a railroad hauls to run its own locomotives, and operating efficiency demands that every possible pound of steam be secured from such coal.
- A first step in getting full value from each ton of fuel is to make certain that a complete brick arch is maintained in the firebox of every locomotive.
- Long years of service on all types of locomotives have demonstrated the power-increasing and fuel-saving advantages of Security Sectional Arches.

**HARBISON-WALKER  
REFRACTORIES CO.**  
*Refractories Specialists*



**AMERICAN ARCH CO. INC.**  
60 East 42nd Street, New York 17, N. Y.  
*Locomotive Combustion Specialists*

March 8, 1947

the Reconstruction Finance Corporation \$450,000 of 4 per cent trustee's certificates, the proceeds of which would be applied toward the settlement of claims of employees for retroactive wage adjustments, including \$339,000 to non-operating employees and \$111,000 to operating employees. The wage agreement between the applicant and its employees was approved by the District Court of the United States for the Southern District of New York on February 14.

**NORFOLK & WESTERN.—Proposed Stock Split.**—The stockholders of this road will vote on May 8 on a proposal to split the preferred and common stocks on a 4-for-1 basis, it has been reported. Outstanding preferred and common shares total, respectively, 219,902 and 1,406,438.

**READING.—Annual Report.**—Operating revenues of this road in 1946 amounted to \$101,426,120, compared with \$109,351,508 in the preceding year. Operating expenses totaled \$83,514,547, compared with \$97,490,625. Fixed charges were \$5,400,458, compared with \$6,641,157. Net income was \$4,594,490, compared with \$10,622,755. At the end of the year, current assets were \$35,885,183, a decrease of \$8,785,271. Current liabilities were \$23,035,340, a decrease of \$5,656,557. Long term debt was \$98,368,582, a decrease of \$602,451.

Negotiations were concluded during the year for the establishment in the Reading's territory of 70 new industries of a diversified nature, 24 of which have constructed or are building new plants, the annual report said. It is estimated that the traffic of these new industries, when completed and in normal operation, will total more than 44,000 cars of freight, producing revenue to the road of approximately \$2,500,000 a year.

**SOUTHERN.—Trackage Rights.**—Division 4 of the Interstate Commerce Commission has authorized this road to acquire joint use of the so-called Bennett's Fork (8.2 miles) and Stony Fork (8.3 miles) branches of the Louisville & Nashville. The applicant has operated over the two segments, located in coal mining areas in the vicinity of Middlesboro, Ky., under various agreements and contracts since 1902. The present agreement will be dated May 1, 1946, and will terminate November 3, 1956, subject to the right of the Southern to renew it for additional periods of 10 years each. The transaction was approved subject to the usual employee-protection conditions.

**SOUTHERN PACIFIC.—Operating Agreement.**—Division 4 of the Interstate Commerce Commission has authorized, effective January 1, modification of a lease agreement under which the Southern Pacific operates the Dawson. The latter, a part of the El Paso & Southwestern system, is a wholly owned subsidiary of the Dawson Railway & Coal Co., which, in turn, is a wholly owned subsidiary of the S. P.

Under the modified agreement, which was approved subject to the usual employee-protection conditions, the S. P. will pay the Dawson an annual rental as provided in the standard lease used in the operation of other E. P. & S. lines. It supplants a lump-sum annual rental agreement and

provides specifically for the payment of sums sufficient to cover income taxes, debt-service charges and expenses necessary to maintain the corporate organization of the Dawson.

**WHEELING & LAKE ERIE.—Equipment Trust Certificates.**—Division 4 of the Interstate Commerce Commission has authorized this road to assume liability for \$1,680,000 of Series M Equipment trust certificates, the proceeds of which will be applied toward the purchase of 750 60-ton all-steel hopper cars at an estimated unit cost of \$2,810. The certificates will mature in 20 equal semiannual installments starting September 1. The report also approves a selling price of 99.419 with a 1½ per cent interest rate, the bid of Halsey, Stuart & Co. and associates on which basis the average annual cost will be approximately 1.62 per cent.

## Average Prices Stocks and Bonds

	Mar. 4	Last week	Last year
Average prices of 20 representative railway stocks..	50.38	51.11	59.89
Average prices of 20 representative railway bonds..	91.49	91.95	102.48

## Dividends Declared

Atlanta & Charlotte.—\$4.50, semi-annually, payable March 1 to holders of record February 20.  
 Beech Creek.—50¢, quarterly, payable April 1 to holders of record March 7.  
 Dayton & Michigan.—87½¢, semi-annually; 8¢ preferred, \$1.00, quarterly, both payable April 1 to holders of record March 15.  
 European & North America.—\$2.50, semi-annually, payable April 3 to holders of record March 13.  
 Gary.—50¢, payable March 1 to holders of record February 19.  
 Pittsburgh, Bessemer & Lake Erie.—75¢, semi-annually, payable April 1 to holders of record March 15.  
 Pittsburgh, Fort Wayne & Chicago.—\$1.75, quarterly, payable April 1 to holders of record March 10; preferred, \$1.75, quarterly, payable April 8 to holders of record March 10.  
 Reading.—4¢ 2nd preferred, 50¢, quarterly, payable April 10 to holders of record March 20.  
 Wheeling & Lake Erie.—75¢, payable April 1 to holders of record March 21.

## Construction

**CHESAPEAKE & OHIO.**—This road has awarded the following contracts, the estimated costs of which are shown in parentheses: To the Ralph E. Mills Company, Salem, Va., for grading and masonry for a spur track and the substructure of a bridge over the Guyandot river to serve a coal mine development at Wilber, W. Va. (\$166,000); and to the Forbes Construction Company, Huntington, W. Va., for grading and masonry for a spur track and mine tracks serving a coal mine development at White House, Ky. (\$85,000).

The following projects, all of which are to be undertaken by the road's own forces, have been authorized and the probable costs are shown in parentheses: Construction of a C. T. C. signal system between St. Albans, W. Va., and MacCorkle and between Sproul, W. Va., and Brounland (\$378,175); rebuilding bridges at Cabot, W. Va. (\$30,500); at Julian, W. Va. (\$27,100), at Holly, W. Va. (\$40,300), at Leon, Ky. (\$35,900), at Limestone, Ky. (\$28,000) and at Newkirk, Ohio (\$30,456); laying tracks for a mine development at Craft, W. Va. (\$30,950); a system-wide program

of respacing and rearranging of certain signals to provide adequate stopping distances for trains (\$150,900); rebuilding the approaches to bridge No. 5129 over the Big Sandy river at Big Sandy Junction, Ky. (\$1,124,100); installation of a 130-in. twin-span turntable to replace a 115-in. table at the new roundhouse and reinstalling the 115-in. table at the old roundhouse to replace a 100-in. table, all at Russell, Ky. (\$236,900); and the installation of remote-controlled power switches and signals at passing tracks from Limeville, Ky., to Parsons, Ohio, and from Columbus, Ohio to Cummings (\$1,581,600). In addition, these projects for which bids are to be requested also have been authorized: Construction of a brick chemical house at Peach Creek, W. Va. (\$24,000); replacement of an elevated steel water tank by a steel standpipe type tank at Stevens, Ky. (\$25,000), and the installation of 15 car retarders and loud-speaker and pneumatic tube systems at Walbridge, Ohio, (\$1,328,270).

**MISSOURI PACIFIC.**—This road is revising its line and raising its tracks at Granite Bend, Mo., at an estimated cost of \$484,000. The contract for grading has been awarded to Winston Brothers Company, of Minneapolis, Minn., with the balance of the work being performed by the road's forces. A similar project is underway between the M. P.'s Kaskaskia river crossing and Reily Lake, Ill., at an estimated cost of \$370,000. The company forces are performing this work, with the exception of grading, which has been awarded to the O'Dell & Riney Construction Co., of Kirkwood, Mo. This project is being completed in conjunction with the federal government's flood protection plan.

In order to clear right of way for a new flood wall being constructed by the government between the Kansas-Missouri state line and Grand Avenue, at Kansas City, Mo., the road is rearranging its tracks and facilities, at an expenditure of approximately \$253,400. Other projects of the road, with approximate costs in parenthesis, are as follows: construction of a roadway machine repair shop at Sedalia, Mo. (\$95,000); installation of train communication radio and inductive carrier on 15 locomotives and 15 cabooses and at seven wayside stations between McGehee, Ark., and Alexandria, La. (\$96,000); construction at St. Louis, Mo., of a 40-ft. by 80-ft. one-story brick office at each end of the present inbound freight house, and of a 70-ft. by 90-ft. one-story structural steel frame and corrugated asbestos enclosed freight house extension (\$63,000); construction of a 24-ft. by 92-ft. two-story brick Y. M. C. A. building and a 30-ft. by 50-ft. one-story brick restaurant, at Bush, Ill. (\$64,000); and construction of 59-ft. by 129-ft. partially-enclosed building over the maintenance of way equipment repair facilities, at North Little Rock, Ark. (\$41,700).

**NORFOLK & WESTERN.**—This road has applied to the Interstate Commerce Commission for authority to construct a 5.2-mile line between Cooper, W. Va., and Lick Branch to replace on a different location an existing 5.5-mile line between the same points which it intends to abandon.

**WHERE FUEL IS EXPENSIVE**  
**... EXHAUST STEAM INJECTORS PREDOMINATE**  
*Keep Abreast of Locomotive Boiler Efficiency with Elesco*



**THE  
 SUPERHEATER  
 COMPANY**

Representative of AMERICAN THROTTLE COMPANY, INC.  
 60 East 42nd Street, NEW YORK  
 122 S. Michigan Ave., CHICAGO  
 Montreal, Canada, THE SUPERHEATER COMPANY, LTD.



Superheaters • Superheater Pyrometers • Exhaust Steam Injectors • Steam Dryers • Feedwater Heaters • American Throttles

# Railway Officers

## EXECUTIVE

**G. F. Potter**, whose appointment as assistant to vice-president of the Atlantic Coast Line at Wilmington, N. C., was reported in the *Railway Age* of February 22,



**G. F. Potter**

was born at Cincinnati, Ohio, on October 27, 1895. Mr. Potter entered railroad service in 1914, with the Southern, remaining with that road until 1927. From the latter year until 1934, he was in the construction business and from 1934 to 1935, he was with the Mobile & Ohio. Mr. Potter has been with the Atlantic Coast Line since 1935, and was serving as general freight agent at the time of his recent appointment as assistant to vice-president.

**R. E. Davies**, executive assistant of the Minneapolis, St. Paul & Sault Ste. Marie, with headquarters at Minneapolis, Minn., has retired after 43 years of railroad service.

**Harry W. Dorigan**, executive assistant to the trustees of the New York, New Haven & Hartford, with headquarters at New Haven, Conn., has been appointed assistant vice-president in charge of real estate and real estate taxes. **Samuel A. Boyer**, director of public relations and assistant to president at New York, has been promoted to assistant vice-president in charge of public relations, advertising and industrial development. The positions formerly held by Mr. Dorigan and Mr. Boyer have been abolished. **James O. Halliday**, special assistant to vice-president of operations, with headquarters at New Haven, has retired after almost 60 years of railroad service, over 52 of which were with the New Haven. Mr. Halliday was born at Newport, Va., on November 5, 1871, and entered railroad service in July, 1887, with the Chesapeake & Ohio. The following year he went with the Norfolk & Western returning to the Chesapeake & Ohio in 1890. He then served with the Baltimore & Ohio, the New York Central & Hudson River (now New York Central), and the West Shore, successively. Mr. Halli-

day went with the New Haven in 1893 in telegraph service and on special work. From July, 1908, to September, 1913, he was master of transportation for the New Haven, becoming assistant to general manager on the latter date. He was appointed superintendent transportation in June, 1916, becoming manager of transportation in June, 1925, and assistant to general manager on November 1, 1931. Mr. Halliday held the latter position until July 22, 1935, when he was appointed special assistant to vice-president at New Haven, the position he held until his retirement.

## FINANCIAL, LEGAL AND ACCOUNTING

**Leo V. Sullivan**, general auditor of the New York, New Haven & Hartford, with headquarters at New Haven, Conn., has been promoted to comptroller. The position formerly held by Mr. Sullivan has been abolished.

**Frederick W. Doolittle, Jr.**, has been appointed assistant general counsel of the Baltimore & Ohio, with headquarters at Baltimore, Md. From January 20, 1936, until January 31, 1947, Mr. Doolittle was associated with the law firm of Rathbone, Perry, Kelley & Drye of New York, spe-



**Frederick W. Doolittle, Jr.**

cializing in corporation and financial law. Born on September 13, 1911, at Madison, Wis., where he attended public schools, Mr. Doolittle received his A.B. degree from Princeton University in 1932 and his LL.B. degree from Harvard in 1935.

**M. W. Mashburn**, assistant to the controller of the Nashville, Chattanooga, & St. Louis, with headquarters at Nashville, Tenn., has been promoted to auditor of disbursements there, succeeding **A. G. Miller**, who has retired following 50 years of service.

## OPERATING

**Arthur N. Jewell**, superintendent of the Philadelphia division of the Reading, with headquarters at Philadelphia, Pa., has been appointed assistant general manager. **G. F. VanLuvanee**, assistant division superintendent at Philadelphia, succeeds Mr.

Jewell as superintendent of the Philadelphia division.

Mr. Jewell was born on February 24, 1898, and entered railroading with the Reading as a clerk in the office of the auditor of passenger traffic on October 13, 1913. Two years later he went to the New York division as a messenger in the superintendent's office. In August, 1916, he was appointed clerk, Philadelphia division, and on May 9, 1918, he became assistant yardmaster, serving subsequently as clerk and yardmaster at various stations on that division until June 1, 1937, when he was ad-



**Arthur N. Jewell**

vanced to assistant trainmaster. The following November he was appointed supervisor yards and terminals at Reading and on August 1, 1941, he became trainmaster of the Reading division. Mr. Jewell was appointed assistant superintendent of the Philadelphia Division on January 16, 1942, and was promoted to superintendent of the Shamokin division at Tamaqua, Pa., on June 16, 1945, being transferred to the Philadelphia division the following November.

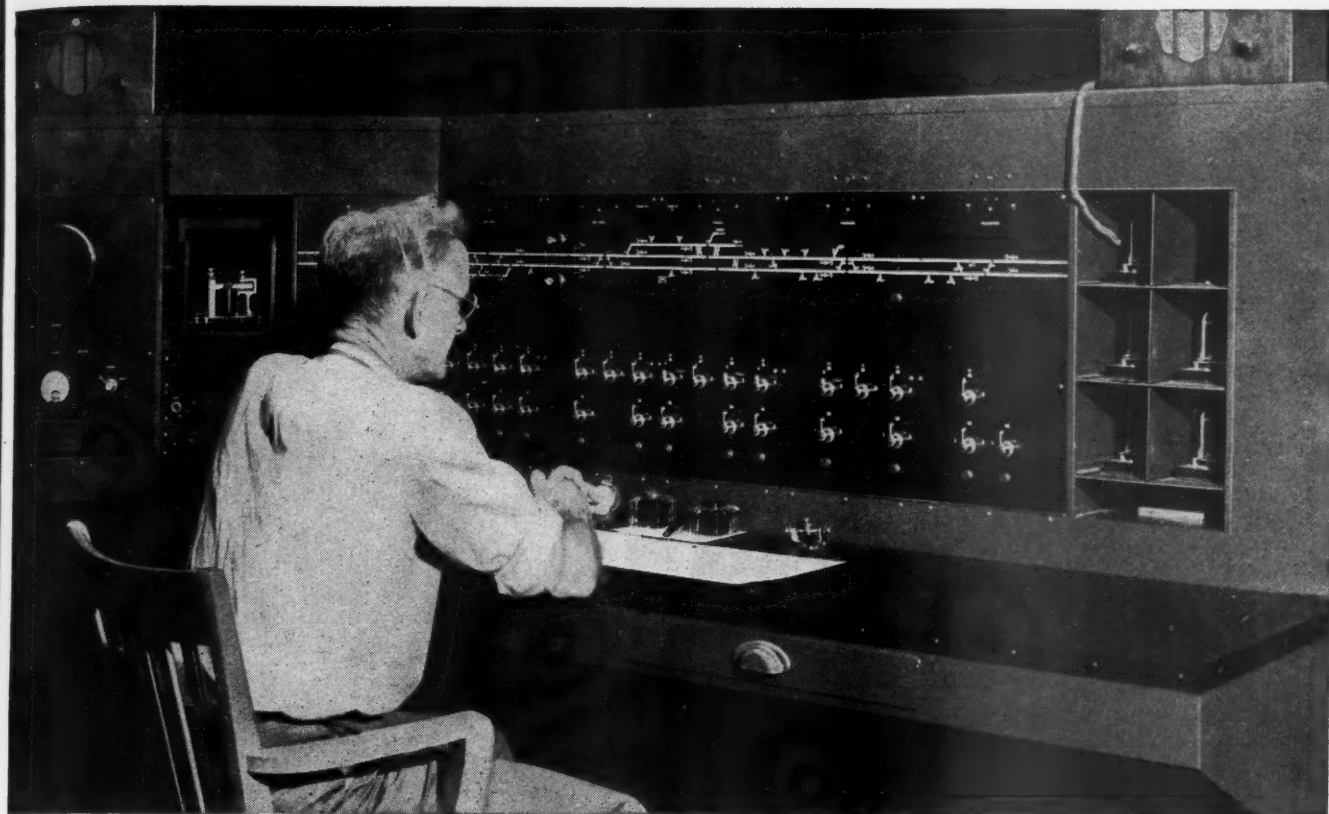
**C. F. Grimes** has been appointed assistant to assistant general manager of the New York Central system, with headquarters at Syracuse, N. Y.

**Edward R. Prueter**, acting car accountant of the Illinois Central, has been appointed car accountant, with headquarters as before at Chicago.

**William H. Ferguson**, trainmaster of the Southern Pacific at San Luis Obispo, Cal., has been promoted to assistant superintendent of the road's Shasta division, with headquarters at Dunsmuir, Cal. He is succeeded by **T. W. Roby**, trainmaster at Fresno, Cal., who in turn is succeeded by **T. A. Purcell**, trainmaster at Mojave, Cal. Mr. Purcell is relieved by **R. A. Miller**. **T. T. Hurley** has been appointed terminal trainmaster at Carrizozo, N. M.

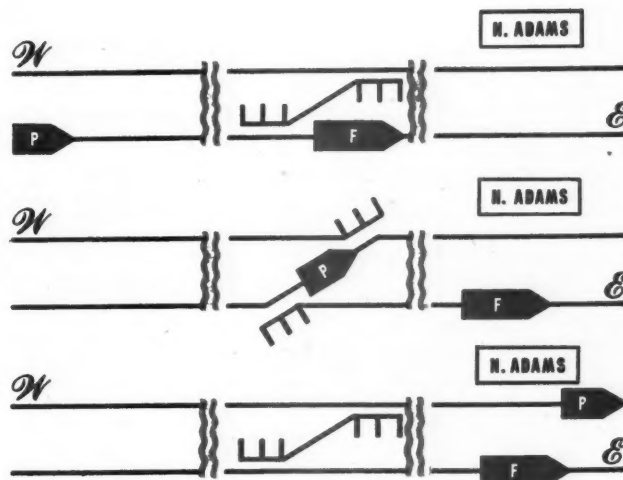
**Arthur J. Horton**, general superintendent of the Chicago, Burlington & Quincy, with headquarters at Lincoln, Neb., has been appointed general superintendent at Burlington, Iowa, succeeding **J. C. Grisinger**, promoted to general manager, lines East, at Chicago. Mr. Grisinger succeeds **James H. Aydelott**, whose

Philadel-  
February 24,  
with the  
ce of the  
October 13,  
the New  
he super-  
5, he was  
sion, and  
ant yard-  
clerk and  
that divi-  
was ad-



## Here's the proof...

■ An east bound freight, working the yard at North Adams holds the eastward main track. The east bound *Minute Man*, one of the B & M's crack passenger trains, is rapidly approaching along the same track. Under the old method of operation, the *Minute Man* would be delayed while the freight cleared through the yard.



■ A glance at the CTC control board tells the operator that the westward track is clear. Before you can count "one," he reaches out electrically throwing switches and setting signals — directing the passenger to the westward track.

■ The way for the fast train is cleared. It speeds on without unnecessary delays — without even slowing down. This is only one example of how G-R-S CTC enables you to keep streamliners and freights on the move — *and on schedule!*

A-2198  
**General**  
Railway Signal Company

ROCHESTER 2, N. Y. • NEW YORK 17  
CHICAGO 3 • ST. LOUIS 1

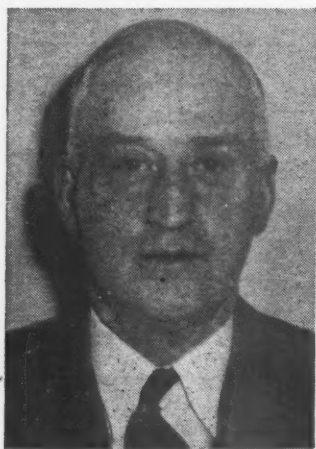
March 8, 1947

election as vice-president of the Association of American Railroads in charge of operations and maintenance is reported elsewhere in this issue. **Fred B. Whitman**, assistant general superintendent at Lincoln, succeeds Mr. Horton as general superintendent at Lincoln.

**Harold C. Mauney**, whose promotion to superintendent of the Alabama Great Southern (part of the Southern system), with headquarters at Birmingham, Ala., was reported in the *Railway Age* of February 8, was born on June 14, 1912, at Charlotte, N. C., and received his higher education at the University of South Carolina. He entered railway service in 1936 as a student apprentice with the Southern, remaining in that capacity until 1938 when he became track supervisor at Keysville, Va. He served in that position also at Richmond, Va., and in 1941 became assistant trainmaster at Strasburg, Va. From February, 1942, to November, 1945, Mr. Mauney was in military service, 34 months of which were spent overseas. He served with the 727th railway operating battalion, attaining the rank of major. On November 1, 1945, he was appointed trainmaster at Alexandria, Va., and he was advanced to assistant superintendent at Greenville, S. C., in September, 1946. Mr. Mauney was serving in the latter capacity at the time of his new appointment.

## TRAFFIC

**Charles F. Palmer**, general passenger agent of the Boston & Maine and the Maine Central, with headquarters at Boston, Mass., has been promoted to passenger traffic manager of both roads, with head-



**Charles F. Palmer**

quarters at Boston and Portland, Me. **Harold J. Foster**, assistant general passenger agent of both roads at Portland, Me., has been appointed general passenger agent, with the same headquarters. **Edward P. Shaw** and **Robert F. Cowan**, assistant general passenger agents of the Boston & Maine at Boston, have been promoted to general passenger agents of that road, with the same headquarters.

Mr. Palmer entered railroad service as a clerk for the Boston & Maine in 1906. In 1909 he resigned to become assistant ticket agent of the West Shore and in

1910 he became traveling passenger agent of the Boston & Albany. He served in the Navy during World War I. In 1926 he returned to the Boston & Maine as New England passenger agent and in 1930 was promoted to assistant general passenger agent. Mr. Palmer served as general passenger agent of the Boston & Maine and the Maine Central from January, 1942, until his recent promotion to passenger traffic manager.

Mr. Foster was born at Portland and entered the service of the Maine Central in 1916 as a clerk in the office of the auditor of freight receipts. He was promoted to the accounting department in 1933 and was



**Harold J. Foster**

transferred to the Boston office of the Boston & Maine. In November, 1934, he was appointed traveling inspector for the Portland Terminal at Portland. A short time later he was promoted to traffic agent of the Maine Central and on October 25, 1935, he was appointed assistant general representative. Mr. Foster became assistant general passenger agent of the Boston & Maine and Maine Central in 1936, which



**Edward P. Shaw**

position he held at the time of his recent promotion to general passenger agent of those roads.

Mr. Shaw entered the service of the Boston & Maine in 1904 and, after being promoted through various clerical positions, was named chief clerk of the passenger department in 1926. He became chief ticket and tariff bureau clerk in 1937 and served

as assistant general passenger agent from 1942 until his recent promotion to general passenger agent.

Mr. Cowan entered the service of the



**Robert F. Cowan**

Boston & Maine in 1926 as clerk and, after various promotions, was appointed traveling passenger agent in 1936. He became assistant general passenger agent in 1942, the position he held until his recent promotion to general passenger agent.

**John R. Scott**, assistant general freight agent of the Canadian National, at Vancouver, B. C., has retired after 51 years of railroad service.

**William H. Francis**, general freight agent of the Southern Pacific, with headquarters at El Paso, Tex., has retired, following 40 years of railroad service.

**Edwin H. Gardner**, division freight agent of the Baltimore & Ohio at Indianapolis, Ind., has been promoted to assistant to freight traffic manager, with headquarters at Baltimore, Md.

**W. F. Kruse** has been appointed general agent of the Chesapeake & Ohio and the Pere Marquette, with headquarters at Cleveland, Ohio. **D. W. Clark** has been appointed assistant general agent at Cleveland.

**T. L. Ritchey**, assistant general freight agent of the Chicago Great Western, with headquarters at St. Joseph, Mo., has retired after a railroad career of 51 years. **R. C. Jamison** has been appointed general agent at St. Joseph.

**Edwin Berg Harkness**, supervisor of industrial operation of the Canadian National, at Montreal, Que., has been appointed industrial agent for the area extending from Joliette and Rosalie Junction, Que., to Brockville and Brent, Ont., and all lines north and south to the United States border.

**J. Parker Donovan** has been appointed assistant general freight agent of the Chesapeake & Ohio at Detroit, Mich. **F. W. Ditman** and **L. J. Byrne** have been appointed division freight agent and assistant general freight agent, respectively, at Detroit. **C. J. Ploss** has been named general agent at Cincinnati, Ohio, and



“BE ALWAYS SURE YOU’RE RIGHT  
— *then go ahead*”

DAVY CROCKETT said it in 1834; we have practiced it since 1810. It is the rule that justifies our leisurely *controllable* air furnace process of iron manufacture. Because of this unhurried method we have time not only to make a *better* iron, but also to be sure it is *just right* before a single mold is cast.

Faster and cheaper methods may suffice for most uncritical uses, but modern locomotive operation demands an iron with superior properties of wear and heat resistance—Hunt-Spiller Gun Iron, a standby with most American railroads for more than a generation.

Hunt-Spiller are exclusive railroad sales representatives for Double Seal Piston Rings made for Diesel and other services. Double Seal rings are cast from Hunt-Spiller Air Furnace Gun Iron.



## HUNT-SPILLER MFG. CORPORATION

N. C. RAYMOND, President

E. J. FULLER, Vice-Pres. & Gen. Mgr.

383 Dorchester Ave. ★ South Boston 27, Mass.

Canadian Representatives: Joseph Robb & Co., Ltd., 4050 Namur St., Montreal 16, P. Q.

Export Agents:

International Rwy. Supply Co., 30 Church Street, New York 7, N. Y.

Cylinder Bushings  
Cylinder Packing Rings  
Pistons or Piston Bull Rings  
Valve Bushings  
Valve Packing Rings  
Valve Bull Rings

Crosshead Shoes  
Hub Liners  
Shoes and Wedges  
Floating Rod Bushings  
Light Weight Valves  
Cylinder Liners and Pistons  
for Diesel Service

Dunbar Sectional Type Packing  
Duplex Sectional Type Packing  
for Cylinders and Valves  
(Duplex Springs for Above  
Sectional Packing)  
Cylinder Snap Rings  
Valve Rings, All Shapes

**R. A. Miller** has been appointed general agent at Saginaw, Mich.

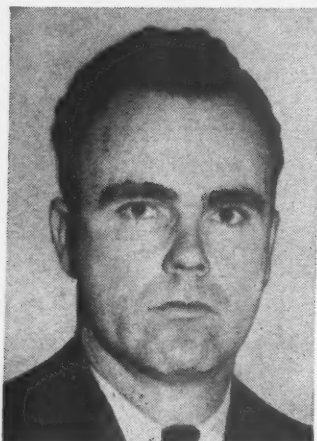
**R. B. Warner**, whose appointment as general freight agent of the Atlantic Coast Line at Wilmington, N. C., was reported in the *Railway Age* of February 22, was born at Columbus, Ga., on September 28, 1898. After service in the 151st machine gun battalion, 42nd division, during World War I, Mr. Warner was a commercial radio operator from 1920 to 1921. He then served on



**R. B. Warner**

several American merchant vessels. On June 12, 1922, he entered railroad service with the Atlantic Coast Line, serving in various capacities in the freight department until September 1, 1940, when he became assistant general freight agent at Wilmington, the position he held until his recent promotion.

**E. C. Nickerson**, assistant general traffic manager of the New York, New Haven & Hartford, has been promoted to general traffic manager in charge of the traffic department, with headquarters as before at Boston, Mass. Mr. Nickerson



**E. C. Nickerson**

was born at Chatham, Mass., in 1909; and was graduated from Harvard University and Harvard Business School. Following experience with coastwise and intercoastal steamship lines, he entered railroad service with the New Haven as traffic representative. He was subsequently advanced to the positions of special assistant to vice-president, assistant manager of sales and service

and manager of traffic research and development. He also served as general director for the traffic subcommittee of the Railroad Committee for the Study of Transportation of the Association of American Railroads. In December, 1945, he was appointed assistant general traffic manager and held that position until his recent appointment as general traffic manager.

**E. E. Briers** has been appointed assistant general freight agent of the Chesapeake & Ohio and the Pere Marquette, with headquarters at Huntington, W. Va., and **H. Waddell** has been appointed general agent-sales, at Huntington. **A. A. Hiby** has been appointed general agent at New York. **G. E. Loury** has been appointed division freight agent at Charleston, W. Va. **P. T. Davis** has been appointed general agent-merchandise sales, at Beckley, W. Va. **C. N. Page** has been appointed division freight agent at Richmond, Va. **Forrest Jackson** has been appointed general agent-sales, at Lynchburg, Va. **T. M. Holloway** has been appointed general agent-sales, at Norfolk, Va.

**A. M. Glassmeyer**, whose promotion to regional freight traffic manager in charge of sales of the Chesapeake and Ohio, with headquarters at Cincinnati, Ohio, was reported in the *Railway Age* of February 15, was born on December 11, 1895, at Cincinnati. He entered railway service there in 1911 as clerk-stenographer with the Norfolk & Western, in which capacity he remained until 1916, when he joined the C. & O. He served successively as a clerk at Toledo, Ohio, and as secretary to the vice-president at Cincinnati, before entering the U. S. Navy during World War I. Following his discharge he held positions as clerk at Richmond, Va., and as secretary to vice-president, traveling freight agent, general agent and general traveling agent, successively, at Cincinnati. In 1931 he was appointed general western freight agent, and the following year was advanced to assistant general freight agent. He was promoted to assistant freight traffic manager in 1942, the position he held at the time of his new promotion.

## ENGINEERING & SIGNALING

**C. I. Hartsell**, division engineer of the Pere Marquette at Saginaw, Mich., has been transferred to the Detroit Terminal and Canadian division, with headquarters at Detroit, Mich., succeeding **A. R. Dewees**, who has retired after 46 years of service. **E. J. Hartsell**, division engineer at Saginaw, has assumed jurisdiction over the territory formerly under Mr. Hartsell. **James L. Alvord** has been appointed assistant division engineer, with headquarters at Saginaw.

**John E. Gault**, the announcement of whose promotion to assistant chief engineer of the Chicago, Indianapolis & Louisville, with headquarters at LaFayette, Ind., appeared in the *Railway Age* of January 25, was born at LaFayette on June 5, 1904, received his higher technical training at Purdue university, and entered railroad

service in the summer of 1926 on the engineering corps of the C. I. & L. From 1927 to 1930 he served successively as an assistant engineer with the division of highways of the city of Akron, Ohio, and the Baltimore & Ohio, at Connellsville, Pa., and Dayton, Ohio. He became general foreman, construction, on the B. & O., at Toledo, Ohio, in 1930, and assistant engineer at Indianapolis, Ind., in 1931. From 1934 to 1938 Mr. Gault was in private business at LaFayette. In the latter year he



**John E. Gault**

was appointed track supervisor on the Denver & Rio Grande Western, at Denver, Colo. A year later he entered the service of the C. I. & L. as track supervisor, at LaFayette. In 1942 he was advanced to roadmaster, with the same headquarters, the position he held at the time of his recent promotion.

## MECHANICAL

**T. T. Blickle**, supervisor of Diesel engines of the Atchison, Topeka & Santa Fe, at Chicago, has been appointed master mechanic of the Western division, with headquarters at Dodge City, Kan., succeeding **W. W. Walker**, who has been transferred to Winslow, Ariz.

**F. W. Bunce**, shop superintendent of the Chicago, Milwaukee, St. Paul & Pacific at Minneapolis, Minn., has been appointed master mechanic of the Chicago Terminal and Terre Haute division, with headquarters at Western Avenue, Chicago, succeeding **H. E. Nicksch**, who has been transferred to the Hastings & Dakota division, with headquarters at Aberdeen, S. D., where he replaces **W. W. Henderson**, who has been transferred to the Iowa division, with headquarters at Marion, Iowa. Mr. Henderson replaces **F. L. King**, who has been appointed shop superintendent at Minneapolis, with jurisdiction also to include the Twin City Terminals and Duluth division, succeeding Mr. Bunce.

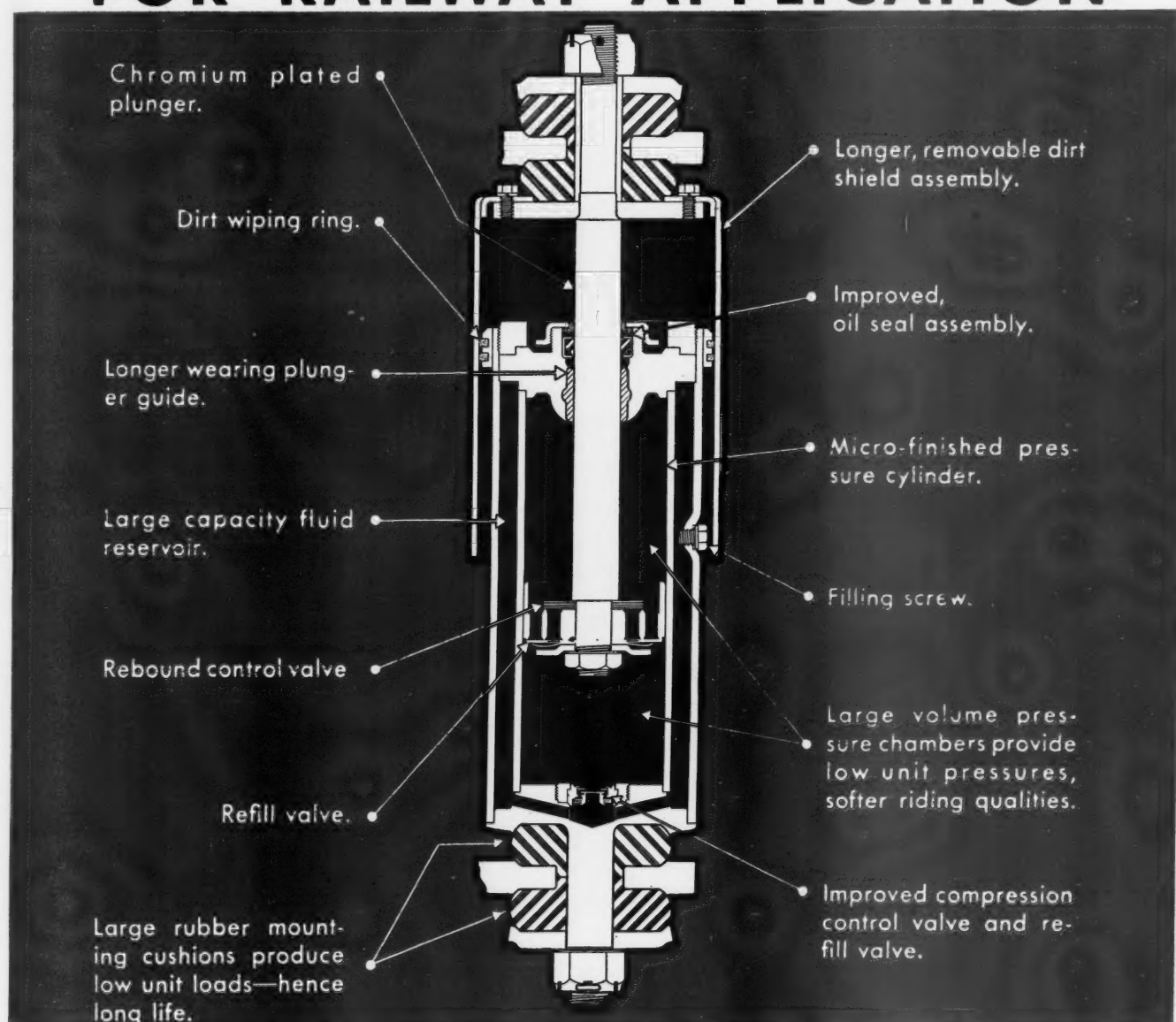
## OBITUARY

**Charles Milbauer**, who was vice-president and general manager of the Hoboken Manufacturers Railroad from 1928 to 1931, died on February 24 at his home in Newark, N. J., after a long illness, at the age of 65.

PRECISION-BUILT...TO LAST!

# MONROE

HYDRAULIC SHOCK ABSORBERS  
FOR RAILWAY APPLICATION



**WATCH FOR IMPORTANT ANNOUNCEMENTS!**

**MONROE AUTO EQUIPMENT CO., MONROE, MICH.**

CHICAGO OFFICE  
3001 Willoughby Tower Bldg.

RAILWAY SUPPLY DIVISION

WASHINGTON, D. C., OFFICE  
1028 Connecticut Ave. N. W.

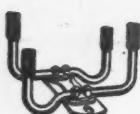
March 8, 1947



**use this comprehensive, local service**



**Graybar's Railroad Department can help you select, obtain, and apply the best items for any pole-line project**



Graybar distributes everything in railway pole-line hardware, including specially designed point-type transposition brackets for single and three channel telephone carrier circuits.



Graybar also supplies wood and steel poles and cross-arms; porcelain, glass, and rubber insulators; standard BB and extra-high-strength iron telephone wire, as well as a full range of other conductors; connectors; line-protective devices; linemen's tools and safety equipment.



At the Graybar office and warehouse near you, there are specialists who can save you time in obtaining first-quality items for all your electrical needs, including railway communication equipment, lighting and lamps, repair-shop power apparatus and electric tools. *Graybar Electric Company. Executive offices: Graybar Building, New York 17, N. Y.*

4735

**OFFICES AND WAREHOUSES IN OVER 90 PRINCIPAL CITIES**



## Current Publications

### ARTICLES IN PERIODICALS

*Nationalization of Inland Transport. Labor and Industry in Britain, January, 1947, pp. 6-9. The Coordination of Britain's Transport. February, 1947, pp. 36-40. Available from the British Information Services, 30 Rockefeller plaza, New York 20.*

The article in the January issue outlines briefly the plan to nationalize transport in Great Britain. The February issue contains background data leading up to the introduction of the plan, and an account of its reception thus far.

*Narrow-Gage Holiday, by Lucius Beebe. Holiday, March, 1947, pp. 81-83, 130 and 132. Published by the Curtis Publishing Company, Independence square, Philadelphia 5, Pa. Single copies, 50 cents.*

The consist of, and territory covered by, the "San Juan," termed the last narrow-gage passenger train in the United States which maintains daily schedules and carries luxury equipment, are described and illustrated in this article. The train operates over the narrow-gage line of the Denver & Rio Grande Western.

### BOOKS

*This Fascinating Railroad Business, by Robert S. Henry. Third edition, revised. 521 pages, illustrations. Published by the Bobbs-Merrill Company, Indianapolis, Ind.*

This book is a "completely up-to-date survey of the railroad business, a book fascinating to laymen and helpful to the railroad man walled into a corner by the intricate detail of his own job." It discusses the tracks, signals, shops, rolling stock, safety devices, and other phases of the railroad business. Some railroad history is included as well as an "Anatomy" of American railroads, i. e., thumb-nail sketches of all the Class I railroads. The book is well illustrated and well indexed.

*Diesel Operation and Maintenance, by Orville L. Adams, Sr. 366 pages, illustrations, drawings. Published by Prentice-Hall, Inc., 70 Fifth ave., New York 11. Price, \$5.*

This book covers problems of operation and maintenance of Diesel engines. It discusses basic principles and procedures, including methods and techniques of maintenance and repair.

*Uniform System of Accounts for Steam Railroads. 270 pages. Published by the Association of American Railroads, Finance, Accounting, Taxation and Valuation Department, Accounting Division, Washington 6, D. C. Price, to member roads and their employees, 75 cents without binder, \$1.50 including binder; to others, \$1.50 without binder, \$3 with binder.*

This loose-leaf publication embodies all amendments to the Interstate Commerce Commission's Accounting Classifications governing investment in road and equipment; operating revenues and operating expenses; income, profit and loss, and general balance sheet accounts; train-miles,

locomotive-miles, and car-miles; and condensed classification of operating expenses, Class II and Class III steam roads, to and including January 1, 1947. It will be kept up to date with substitute pages, amended to conform to any future order or orders of commission. These sheets will be supplied to holders of the publication.

**Accident Prevention Manual for Industrial Operations.** 544 pages, illustrated. Published by the National Safety Council, 20 North Wacker drive, Chicago 6.

This is an authoritative source of accident prevention information for safety directors, safety engineers and foremen. Each of the 14 major divisions of the manual—covering such subjects as plant design and layout, construction and demolition—is preceded by a summarizing index for quick location of general topics. A 12-page detailed alphabetical index gives access to details.

#### TRADE PUBLICATIONS

**Manganese Steel—"The Toughest Steel Known" for the Railroad Industry—Bulletin 943-R.** 40 pages. Published by the American Manganese Steel Division of the American Brake Shoe Company, Chicago Heights, Ill. Free.

A new bulletin containing comprehensive information about austenitic manganese steel, the production facilities of the American Manganese Steel Division, and the research activities of the company. Applications of manganese steel to railroad service are illustrated and described in conveniently arranged sections. In addition, there are sections devoted to Amsco welding materials for reclamation and hard-surfacing, and to Amsco-Nagle pumps for handling abrasive-laden materials.

#### PAMPHLETS

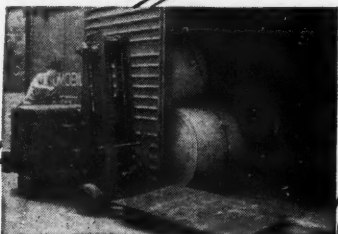
**The Railways of Paraguay,** by Seymour T. R. Abt. 4 pages. Issued by the Office of International Trade, United States Department of Commerce. Available from the Government Printing Office, Washington 25, D. C. Price, five cents.

This is another in the series on railroads of Latin American countries being issued by the Office of International Trade. The only steam railroad in Paraguay that may properly be classified as a common carrier is the British-owned and operated Paraguay Central. Its services, equipment, traffic and financial operations are reviewed in this pamphlet. A list of the other railroads in the country is included, as is a map showing all the railroad lines.

**Cars of Revenue Freight Loaded, 1946-1927.** 10 pages. Published by the Association of American Railroads, Car Service Division, Transportation Building, Washington 6, D. C. Free.

Contains freight car loading statistics, by commodities, by weeks, months, quarters and years, for each of the years under review. No figures for individual roads are included.

## BAKER TRUCK *triples storage space* CUTS HANDLING TIME AND LABOR COSTS



1. Stock arrives in box cars, in 30" and 50" rolls, and varying lengths and widths. 36" rolls weigh from 300 to 1000 lbs.; 50" rolls weigh 1000 to 3000 lbs. Illustration shows Baker Truck placing bridge plate in position prior to unloading.



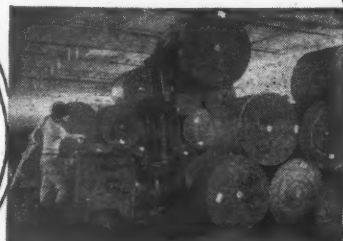
2. The same truck unloads 50" rolls directly from incoming cars and transports them to storage. Rolls are usually stowed in cars two wide and two high.

For the **FORT NIAGARA**  
**CORRUGATED BOX DIVISION**  
of the  
**ROBERT GAIR COMPANY**  
North Tonowanda, N. Y.

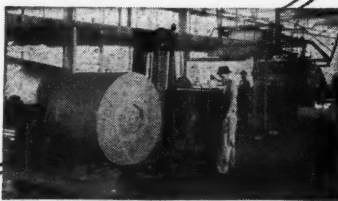
*No Man-Handling  
from box car to  
production!*



3. 36" rolls arrive in separate cars, and are unloaded onto a platform with incline leading into plant, where they are removed by the Baker Truck and taken to storage.



4. Baker Truck tiers rolls horizontally to ceiling height, 50" rolls three high and 36" rolls four high. Thus the truck more than triples the value of storeroom floor space. Bottom rolls are placed on 2" boards to permit entrance of forklifts.



6. Rolls needed for production are transferred from Baker truck onto steel dollies with concave decks matching contour of rolls. Dollies run on narrow-gauge tracks extending to the roll stands.



5. Detiering of rolls is accomplished by positioning truck with fork backs against bottom roll, removing wedge block, and releasing brake which allows two top rolls to lower into position. Before taking roll away, new bottom roll is wedged.

Let the Baker Material Handling Engineer show you how an integrated material flow system can make similar savings in your plant.

**BAKER INDUSTRIAL TRUCK DIVISION of The Baker-Raulang Company**  
2172 WEST 25TH STREET • CLEVELAND, OHIO  
In Canada: Railway and Power Engineering Corporation, Ltd.

# Baker INDUSTRIAL TRUCKS

### Educational Services for RAILROAD MEN

Our New Service  
on  
Diesel Locomotive  
Operation  
is highly recommended  
for  
Engineers and Firemen

The Railway  
Educational Bureau

Omaha 2, Nebraska

### AVAILABLE

Experienced Operating, Maintenance, and Engineering Officer who can get things done. Desires position with any organization going places. Individual jobs considered. Available 30 days. Address Box 859, Railway Age, 30 Church St., New York 7, N. Y.

### RAILS — TRACK SUPPLIES

We are always interested in purchasing rails, new and relaying, frogs, switches. Also carry a stock of relayers on hand and can quote attractive prices.

M. K. FRANK  
Biltz Bldg., Reno, Nevada  
Phone: Reno 2-1616

### WANTED

SALES REPRESENTATIVE 35 to 40 WITH MECHANICAL EXPERIENCE FOR EASTERN RAILWAY TERRITORY. STATE QUALIFICATIONS. REFERENCES. ADDRESS BOX 861 RAILWAY AGE, 30 CHURCH STREET, NEW YORK 7, N. Y.

### Manufacturers' Agent

Can Handle Chicago representation additional railway supply account. Our organization has close contact and extensive experience with major railroad executives Chicago and Twin Cities areas. Full details on request. Address box 862, Railway Age, 30 Church St., New York 7, N. Y.

### LOCOMOTIVES

- 1—38-Ton, 0-4-0 Coal Fired Steam, 36-Inch Gauge.
- 1—8-Ton, Gasoline, Vulcan, 0-4-0.
- 1—15-Ton Whitcomb Gasoline, Standard Gauge.
- 1—120-Ton Electric Battery Locomotive, Good Condition, Standard Gauge, a Real Bargain.
- 1—50-Ton Diesel Electric, Davenport-Beiler, 300 H.P., Tractive Effort 40,000 lbs., Standard Gauge, I.C.C. Condition, Built New 1938, New Diesel Engines in 1946.
- 1—30-Ton 0-4-0 Plymouth Gasoline Locomotive, Standard Gauge.
- 1—30-Ton Davenport-Beiler Gasoline-Electric, Standard Gauge.
- 1—145-Ton 0-10-0, Coal Fired Steam Locomotive, Tractive Effort 68,850 lbs., Built 1925, I.C.C. Condition.
- 2—100-Ton, 0-8-0 Coal Fired Steam, Tractive Effort 45,000 lbs., Built 1926, I. C. C. Condition.
- 1—82-Ton American, 0-6-0, Saddle Tank, Coal Fired Steam Locomotive, Code Boiler, Standard Gauge.

Send us your Inquiry

IRON & STEEL PRODUCTS, Inc.  
42 years' experience  
13486 S. BRAINARD AVE.  
CHICAGO 33, ILLINOIS

"ANYTHING containing IRON or STEEL"

### FREIGHT CARS

- 11—Gondola, All-Steel, 70-Ton, 46-Ft.
- 2—Gondola, All Steel, 57½-Ton.
- 9—Gondola, All Steel, 50-Ton.
- 45—Gondola, Composite, 50-Ton.
- 34—Hopper, Twin, All Steel, 50-Ton.
- 9—Box, 50-Ton, 40-Ft., Single Sheathed.
- 7—Box, 50-Ton, 50-Ft., Automobile, All Steel.
- 12—Box, 40-Ton, 50-Ft., Single Sheathed.
- 14—Box, 50-Ton, 40-Ft., Single Sheathed.
- 13—Caboose, 8-Wheel, Steel Underframe.
- 4—Dump, Magor, 20 Cu. Yd. Automatic Air.
- 27—Tank, 8,000 Gal., Class III, Coiled.
- 7—Flat Cars, 50-Ton, 43-Ft.
- 4—Flat Cars, 40-Ton, 50-Ft.
- 3—Flat Cars, 50-Ton, 35-Ft.
- 1—Flat Car, 50-Ton, 40-Ft.
- 3—Dump, 20 Cu. Yd. Automatic Air, Western.
- 5—Dump, 20 Cu. Yd., Automatic Air, K & J, Lift Doors.
- 15—Dump, 30 Cu. Yd., Clark Automatic Air, Drop Doors.
- 42 years' experience
- 1—Tank, 10,000 Gals., Class III, Coiled.
- 1—Tank, 3665 Gals., Class II, Non-Coiled.

IRON & STEEL PRODUCTS, Inc.  
42 years' experience  
13486 S. BRAINARD AVE.  
CHICAGO 33, ILLINOIS

"ANYTHING containing IRON or STEEL"

### DE LEUW, GATHER & COMPANY ENGINEERS

Railway Terminals and Yards  
Bridges Shops & Structures  
Tunnels Signaling and C.T.C.

Grade Separations  
Transportation Problems  
Industrial Plants

Plans and Supervision  
of Construction

20 North Wacker Dr., Chicago 6

### LOCOMOTIVES

- 4—70 Ton—2-8-0 Coal Fired Baldwin Consolidation Standard Gauge Locomotives. Good Condition, 37,160 pound Tractive Effort.

West Virginia Northern Railroad Co., Kingwood, W. Va.

FOR

INDEX

TO

ADVERTISERS

SEE LAST

WHITE PAGE

## KEEP BUYING BONDS

### FOR SALE

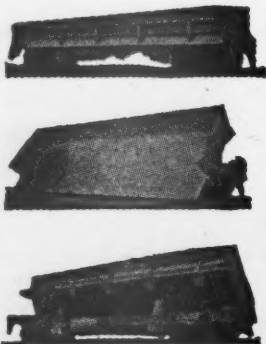
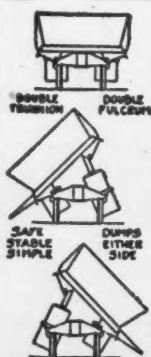
Immediate Shipment  
New Railroad Spikes  
5-½ x 9/16 in 200-pound kegs  
Phone, Wire, Write

GLAZER STEEL  
CORPORATION  
2100 Ailor Ave.  
Knoxville, Tenn.  
Tel. 4-8601

### ATTENTION

Sales Representatives

Located in Illinois—Ohio—Virginia and contacting mechanical-operating departments of railroads headquartered there. Attractive proposition offered to represent manufacturer of repeat sales item established in railroad field. Write in full to Box 860, Railway Age, 30 Church St., New York 7, N. Y.



### AIR DUMP CARS

RAIL CARS  
MINE CARS  
AND  
LOCOMOTIVES  
AXLESS TRAINS

COMPLETE  
HAULAGE SYSTEMS

DIFFERENTIAL STEEL CAR CO.  
FINDLAY, OHIO



The OHIO LOCOMOTIVE CRANE CO. DUEYUS OHIO

TAKE

ADVANTAGE OF

SPACE IN

THE

GET TOGETHER

DEPARTMENT